AUTHOR INDEX

A

Aaronson, S., 23
Abel, P., 198, 391
Abu-Niaaj, F., 323, 324
Acher, R., 152, 161, 164, 405
Ackman, R. G., 22
Acton, J., 301
Adamcova, B., 244, 249
Addy, S. K., 339
Adelberg, E. A., 411, 412, 414, 419
Adye, J. C., 80, 90, 100
Afzelius, B. A., 133, 139
Ahlström, C. G., 232
Ahmad, K. J., 339
Ajl, S. J., 8
Akai, S., 341
Akamatsu, K., 153
Akashi, S., 255
Akazawa, T., 342, 344, 355, 356, 360, 361, 362
Akazawa, Y., 361
Aksenova, V. A., 356
Albertini, A., 378
Alberts, A. W., 14, 15, 16, 17, 18, 26
Albro, P. W., 28
Alexander, E. R., 123
Alexander, H. E., 375
Alexander, J. B., 138, 141
Alexander, J. J., 120
Alexander, P., 225, 245, 249
Alferov, V. V., 78, 79
Algire, G. H., 243
Algranati, I. D., 278
Allam, A. M., 332
Allen, C. F., 34
Allen, E. G., 109, 110, 111, 112, 115
Allen, E. H., 342, 343, 346, 347
Allen, M. K., 382, 383
Allen, P. J., 183, 355
Allen, R. D., 138
Allen, R. F., 363
Allison, A., 311
Allison, A. C., 111, 231
Allison, M. J., 28, 29, 39
Amador, E. J., 351
Ames, B. N., 416
Ammann, J., 301
Anacker, R. L., 93
Anagnostopoulos, C., 375, 386, 387, 390, 391
Anderson, D. R., 109, 110, 111, 112
Anderson, E., 131, 133, 137, 138
Anderson, J. S., 267, 270, 271, 272, 280
Anderson, M. L., 183
Anderson, R. L., 86
Anderson, T. F., 47
Anderson, W. F., 415, 417, 418
André, J., 132, 139, 140, 143
Andrewes, C. H., 50, 60, 62
Andrews, R. D., 306
Angell, H. R., 341
Aoki, H., 390
Applebaum, S., 308
Ap-Rees, T., 361
Archibald, A. R., 276
Argetsinger, J., 140
Armstrong, J. A., 109, 110, 111, 112
Arnaud, M., 173
Aronson, A. I., 172, 173
Artsikhovskaya, Y. V., 340
Ashwell, G., 274, 279, 280, 281
Asselineau, J., 14, 24, 26, 28, 30, 31, 34, 39
Atanasiu, P., 198
Attia, M. A., 244, 249
Aubert, J.-P., 170, 171, 173
Audia, W. V., 342, 347
Aurelian, L., 211, 292
Austrian, R., 255, 284, 386
Avers, C. J., 163
Avery, O. T., 373
Axelrad, A. A., 244, 249
Axelrod, D., 199, 200, 292, 294, 302, 310

B

Babinet, C., 389
Bach, J. A., 174, 175
Bachmann, B. J., 86
Baddiley, J., 34, 255, 274, 275, 276, 278, 282
Bader, J. P., 114, 115
Badian, J., 90
Bagdian, G., 269
Bailey, D. W., 240, 242
Baillie, A., 174
Bak, I. J., 132, 142
Baker, E. A., 339, 340
Balassa, G., 171, 172, 175, 176, 177, 181
Balassa, R., 371
Balbinder, E., 417
Balducci, D., 296
Balducci, M., 296
Baldwin, H. H., 183
Ballio, A., 28
Ballou, C. E., 40
Baltimore, D., 301
Banks, J., 113, 117, 118, 120, 121
Baptist, J. N., 32
Barat, M., 387, 390, 391
Barban, S., 301, 306
Barcellona, S., 28
Barile, M. R., 109, 110, 111, 112
Barker, D. C., 136, 137
Barker, G. A., 255, 278
Barker, H. A., 6, 332, 333
Barnett, L., 406
Barnhart, B. J., 374, 375, 377, 381, 382, 393
Baron, S., 291-318; 292, 293, 294, 296, 297, 298, 299, 300, 301, 302, 303, 304, 306, 308, 309, 310, 311, 312, 313
Baronowsky, P. E., 18, 19, 20, 21, 24, 25
Barrett, M. K., 248
Barron, A. L., 114
Barwell, C. F., 113
Basilico, C., 200
Bateman, D. F., 349
Bath, J. D., 143
Batra, P. P., 94
Batt, R. F., 339, 340
Batty, I., 174, 180
Bauchop, T., 329
Bauer, D. J., 312
Bauer, L., 79, 102
Baum, S. G., 203, 204
Baumann, N. A., 38
Baumann-Grace, J. B., 174
Baur, E., 81, 92
Bausum, H. T., 417, 418
Bawden, F. C., 49
Bayer, M., 136
Bayreuther, K. E., 391, 392
Beadle, G. W., 401
Beale, G. H., 132
Beals, T. F., 194

Beams, H. W., 131
Beard, P. J., 5
Beasley, A., 307
Beaudreau, C. A., 258, 262, 264, 267
Bechet, J., 159, 161
Becker, Y., 109, 110, 115, 118, 122, 213, 214, 303
Beckmann, I., 258, 262, 266
Beckwith, J. R., 401-23; 409, 410, 411, 413, 414
Bedson, S. P., 108, 113, 126
Beebe, J. M., 77, 81, 83, 90
Beer, S. V., 349
Beers, R. J., 173
Beevers, H., 361, 362
Beiser, S. M., 378, 379
Beisson, J., 146, 240
Bell, A. A., 360, 362
Bell, E., 181
Bello, L. J., 207
Beloff-Chain, A., 296
Benacerraf, H., 246
Bender, H., 96, 97, 98
Benedict, A. A., 113
Benedict, R. G., 32
Benjamin, T. L., 200
Bennet, P., 26
Bennett, B., 243
Bennett, C. W., 48
Bennison, B. E., 233
Ben-Porat, T., 191, 196, 209, 210, 211
Benson, A. A., 34, 35
Benzer, S., 408, 409
Beran, K., 321
Berenblum, I., 247
Berezesky, I. K., 204
Berg, C. M., 122
Berger, J. E., 139
Bergére, J.-I., 177
Bergh, A. K., 28
Bergheden, C., 237, 239
Bergs, V., 306
Berman, D. T., 113, 122
Bernard, J., 201
Bernardi, G., 381
Bernfield, M., 408, 411
Bernheim, B. C., 109, 110, 111, 112
Bernheimer, H. P., 255, 284
Bernheimer, H. R., 386
Bernkopf, H., 109, 110, 114, 115, 118, 122
Bernlohr, R. W., 98, 171, 172, 175
Berns, K. I., 381
Bernstein, R. L., 264, 269, 283, 284
Beskid, G., 176
Beskina, S. R., 112
Bevan, E. A., 155, 156, 158
Bhatla, M. N., 323, 324, 325, 326
Bhattacharjee, J. K., 160, 161
Bhattachayara, R. K., 363, 364
Bianchi, P. A., 195
Bianco, A. R., 246
Biehn, W., 339, 341
Billeter, M. A., 301
Birk, Y., 308, 356
Bishop, D. G., 26, 27, 31, 269
Bissell, M., 416
Bister, F., 256
Bizeau, C., 160
Black, H. S., 351
Black, P. H., 198, 199, 201, 202, 204, 208, 302
Bland, J. O. W., 108
Blaylock, B. A., 332
Blecker, H. H., 34
Blicharska, J., 173, 176
Bloch, K., 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 29, 30, 32, 34
Blondel-Quéroix, J., 177
Bloodgood, D. E., 332
Bloomfield, D. K., 18, 19, 20, 22
Blumbergs, P., 281
Blumenthal, H. J., 173, 180
Blumson, N. L., 282
Bodian, D., 309
Bodmer, W. F., 374, 382, 384, 385, 396
Boeye, A., 203
Bogan, R. H., 329, 330, 331
Böhme, H., 417
Boiron, M., 198, 201
Boivin, A., 256
Bollé, A., 409, 410
Bolton, E. T., 101, 112, 199, 200, 202
Bomford, R., 134
Boniforti, L., 28
Bonner, D. A., 389
Bonner, J., 363
Bonner, J. T., 89
Boone, D. M., 354
Bordes, A. M., 159
Bordet, C., 18, 33
Börger, H., 342
Borman, G. S., 211
Borst, P., 301
Borys, M., 355
Bosch, L., 415
Bott, K. F., 175, 391
Bottomley, W., 342
Bouille, M., 175
Bovarnick, M. R., 115, 120
Bovee, E. C., 95, 138
Bovell, C. R., 328
Bowler, B., 339
Boyd, W. L., 77
Boy De La Tour, E., 409
Boyle, O. W., 331
Boyse, E. A., 225, 227, 228, 243, 245, 248, 249
Bozarth, R., 308
Bracco, R. M., 371
Bradley, D. E., 49, 140
Brailovsky, C., 194
Brandes, J., 49
Braun, O. H., 257
Breckenridge, L., 415, 417, 418
Breed, R. S., 76, 78, 101
Breinig, M., 304, 305
Brennan, P., 14, 17
Brenner, S., 406, 409, 410, 411, 412, 413, 414
Bressler, R., 17, 18
Brill, W. J., 332
Brimacombe, J. S., 255, 276
Brimacombe, R., 408, 411
Brock, T. D., 151
Brockerhoff, H., 22
Brockman, E. R., 77
Brodetsky, A. M., 393
Brody, S., 407, 411, 414, 418
Brokaw, C. J., 139
Brondz, B. D., 237
Brooks, J. L., 14, 15, 17
Broquist, H. P., 160
Brown, A., 109, 110, 120, 122
Brown, J. G., 281
Brown, W., 339
Brownstein, B. L., 418
Brubaker, R. R., 116, 117
Brummond, D., 255
Brundish, D. E., 34, 255, 278
Brustad, T., 154, 157
Bryant, M. P., 28, 29, 39
Bubenik, J., 244, 246, 249
Buchan, A., 292, 294
Buchanan, J. M., 196, 215, 412
Buchanan-Davidson, D. J., 356
Buckler, C. E., 293, 298, 299, 300, 302, 304, 306, 308, 309, 310, 311, 312
Bukovac, M. J., 339, 340
Bungay, H. R., III, 320
Burchard, R. P., 93
Burdon, R. H., 301
Burger, M. M., 36, 275, 278

Burke, D. C., 292, 294, 297, 299, 304
Burnet, F. M., 108, 234
Burton, A., 258
Burton, K. A., 151
Burton, R. M., 36, 278
Busch, A. W., 322, 323, 324
Bushnell, W. R., 355
Buswell, A. M., 332
Butel, J. S., 201, 202, 203
Butterfield, C. T., 324
Button, D., 276
Buzzell, J. C., Jr., 332
Byrde, R. J. W., 350
Bystrom, B. G., 339

C

Cabib, E., 278
Cachon, J., 132
Cachon-Enjumet, M., 132
Cahen, S. F., 5
Cahoon, M., 391
Cairns, J., 112, 211, 213
Cai Rui-Chu, 390
Campbell, A., 409
Campbell, L. L., 177, 180
Canfield, R. E., 172, 173
Cantell, K., 297, 305
Canti, R. G., 108
Cappecchi, M. R., 413
Carminatti, H., 278
Carp, R. I., 198, 201, 208
Carson, G., 378
Carswell, E. A., 245, 246, 249
Carter, H. E., 34, 35, 36, 258, 278
Carter, W. A., 302, 303
Casey, M. J., 203, 204, 205, 208
Cashel, M., 178, 179
Caspar, D. L. D., 48, 194
Cassell, E. A., 332
Catanzaro, R., 296
Catlin, B. W., 371
Cattaneo, J., 277
Cavalieri, L. F., 380
Cavalli-Sforza, L., 416, 417, 418, 420
Ceferri, O., 378
Chagoya, V., 191, 207, 208, 213, 214
Chalk, K. J. I., 27
Chaloupecky, V., 181
Chaloupka, J., 171
Champe, S. P., 408, 409
Chang Wen-Lin, 390
Chanock, R. M., 203, 205, 208
Chany, C., 306
Charamella, L. J., 122
Charpak, M., 379
Chase, J. M., 81, 82, 84, 85
Chatterjee, A. N., 270
Cheissin, E. M., 137
Chenault, S., 301
Cheniae, G. M., 24, 35, 37
Chen Wai-Chu, 390
Cherniak, R., 259, 262
Cherry, J. H., 181
Chevalley, R., 409
Chevallier, M. R., 381
Chibnall, A. C., 339
Child, F. M., 138, 141
Cho, G. J., 113, 114, 115
Chroboczek, H., 181
Chung, A. E., 28
Chun-Hoon, H., 115, 117
Churchwood, J. G., 339
Chyle, P., 232
Clark, D. J., 322
Clark, W. A., 81, 83
Clarke, C. H., 154, 156, 157
Clarke, D. A., 245, 246, 249
Clavilier, L., 154, 405
Cleary, J. P., 5
Cleaver, J. E., 118
Clem, L., 307
Cleveland, L. R., 133, 134, 135, 141, 142, 144
Clifford, P., 249
Clifton, C. E., 1-12; 4, 5, 6, 7, 8, 9, 326, 329, 330, 331
Cline, J. C., 293, 311
Cocito, C., 296, 297
Cohen, A., 249
Cohen, G. N., 324
Cohen, L., 249
Cohen, S. S., 193
Cohn, J., 240, 242
Coker, L., 160, 161
Cole, J. S., 350
Cole, M., 350
Collier, L. H., 109
Colón, J. I., 114, 122
Colvin, J. R., 255
Condon, P., 342, 343, 344, 362
Consigli, R. A., 208
Constable, F. L., 109
Cook, F. D., 96, 97
Cook, W. H., 275
Coon, M. J., 32
Cooper, P. D., 49
Cooper, S., 410
Corbett, M. K., 59
Corden, M. E., 350
Cormack, D. V., 154, 157
Cornelius, A., 244, 249
Correll, D. L., 79, 95
Corrivaux, D., 160, 161
Costello, W. P., 156, 158
Costilow, R. N., 173, 174
Coto, C., 210
Couturier, M., 416, 417, 418, 420
Cowie, D. B., 200
Cox, B. S., 154, 155, 158
Cox, E. C., 415
Cox, R. A., 293, 306
Craft, C. C., 342, 347
Crafts, A. S., 340, 341, 342
Crawford, E. M., 201
Crawford, I. P., 386, 387, 407
Crawford, L., 198
Crawford, L. V., 201
Crick, F. H. C., 406, 408
Crocker, T. T., 113, 117, 118, 119, 120, 121
Cruickshank, I. A. M., 342, 343, 344, 346, 363
Csiszar, K., 390
Culbert, K., 320
Cullen, J., 18
Curtis, M. R., 249
Curtiss, R., III, 122
Cutler, R. G., 184

D

Daesch, G. E., 207
Dahl, B., 171, 175
Dales, S., 193, 206, 212, 213
d'Alesandro, P. A., 136
Daly, J. M., 355, 362
Daniel, W. A., 142
Daniels, E. W., 134, 142, 144
Dankert, M., 264, 265, 266, 267
Danneel, S., 143
D'Ari, L., 260
Dark, F. A., 175, 180
Darnell, J. E., 191, 213, 303
da Silva Pereira, A., 163
Davenport, J. B., 339
Davidoff, F., 20, 23, 31, 32
Davies, D. A. L., 226, 227, 256, 257
Davies, J., 415, 416
Davies, W. H., 35
Davis, B. D., 415, 416
Davis, D., 350, 352
Davis, R. H., 404
Davison, P. F., 380, 393
Dawes, E. A., 115
Dawson, G. W. P., 419
De Deken, R. H., 160, 161
De Deken-Grenson, M., 159, 161

Dedonder, R., 379
de Duve, C., 134
Deese, D. C., 351
Defendi, V., 200, 201, 202, 208, 234
de Haller, G., 137, 141
Deichman, G. J., 245
Deinhardt, F., 194, 306
Dekhuijzen, H. M., 348
Delaney, R., 15
Delaumeny, J. M., 30, 31, 34
Delius, H., 301
Del Valle, M. R., 172, 173
De Maeyer, E., 296, 307
De Maeyer, J., 307
Demain, A. L., 160, 180
Demerec, M., 417
DeMoss, J. A., 160
Den, H., 14
Denhardt, G. H., 409
Dennert, G., 411, 412
Denys, P., Jr., 301, 309, 312
DeOme, K. B., 244, 246, 249
Deppe, G., 411, 412
de Puytorac, P., 137, 143, 144
Derache, R., 307
Deringer, M. K., 248
de Robichon-Szulmajster, H., 159, 160, 161
Desaulles, P. A., 307
Desborough, S., 153, 154, 159
DeSimone, V., 195
Desmet, L., 416, 417, 418, 420
De Somer, P., 234, 296, 297, 301, 309, 312
DeTorres, R. A., 198, 208
DeVay, J. E., 354, 356
Dezsi, L., 360
Dickinson, S., 340
Diderholm, H., 201
Diener, T. O., 356
Dietrich, C. P., 273
Dietzler, D. N., 281
diMayorca, G., 200
Dimond, A. E., 350
Dineen, J. K., 236
Dingle, J. H., 204, 206, 207
Dippell, R. V., 132, 141
Dirksen, M. L., 198, 215, 412
Disbrey, C., 140, 141
Distler, J., 34, 35, 255, 278, 279
Dixon, C., 300
Dixon, M. K., 207
Doi, R., 172, 177, 179, 180, 181
Donaldson, L. A., 339
Dondero, N. C., 325
Donikian, M. A., 306
Donnellan, J. E., 180, 181, 183, 184
Dorfman, B., 156, 158
Doty, P., 380, 381
Doudney, C. O., 404
Douglas, H. C., 152, 157, 160, 161, 163, 164
Doupnik, N., 351
Douthit, H. A., 177, 183
Dover, A. S., 111, 112
Downie, A. W., 312
Downing, A. L., 322
Dragesco, J., 137
Draudt, H. N., 342, 343, 344, 348, 350, 362
Dressler, H. R., 115, 117
Dubbs, D. R., 192, 197, 198, 208, 211, 213, 214, 215, 301, 302
Dubnau, D., 184
du Buy, H. G., 309, 310
Dugas, D. J., 143
Duguid, J. P., 328
Dulbecco, R., 48, 194, 195, 196, 197, 198, 199, 202
Dunning, W. F., 249
Dure, L., 181
Dutta, G. P., 133
Dvorkin, B., 307
Dworkin, M., 75-106; 76, 78, 79, 81, 82, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 100, 101

E

Eagle, H., 115
Easterbrook, K. B., 213
Easton, J. M., 204
Eastwood, J. M., 113, 117, 118, 119, 120, 121
Eberhagen, D., 22, 23, 24
Ebina, T., 17
Eckenfelder, W. W., 321, 328
Eddy, B. E., 202, 230, 245
Edgar, R. S., 409
Edgington, L. V., 350
Edstrom, R. D., 36, 258, 260, 262, 264, 267, 268
Edstrom, R. E., 36
Edwards, J. R., 36
Eggers, H. J., 191
Eggertson, G., 411, 412, 414, 419
Ehret, C. F., 137, 141
Ehrhard, H.-B., 7
Elbein, A. D., 255, 260, 281, 282
Elder, A. L., 322
Elliott, A. M., 132, 142
Ellis, M. E., 38
Elovson, J., 20, 24
Elsden, S., 329
Emeis, C. C., 152, 153
Emrich, J., 406
Enders, J. F., 201, 292, 306
Engelbrecht, R. S., 325, 326, 328
Engelhardt, D. L., 412, 413
Ensign, J. C., 97
Ephrati-Elizur, E., 377, 387, 390
Ephrussi, B., 162, 163, 401
Ephrussi-Taylor, H., 371, 377, 378, 380, 383, 388
Epstein, R., 184
Epstein, R. H., 409
Erikson, R. L., 301
Erlandson, R. A., 109, 110, 111, 112
Erwin, J., 20, 21, 22, 23, 24, 34
Etemadi, A. H., 33
Etti, H., 133, 140
Evans, A., 389
Evans, A. H., 371-400; 389
Evans, C. A., 232
Evans, J. E., 184
Evenchik, Z., 179

F

Falaschi, A., 183, 269
Falcoff, E., 306, 307
Falkow, S., 371
Fanshier, L., 244, 249
Fantes, K., 304, 308
Farkas, G. L., 347, 351, 356, 360, 362
Fauconnier, B., 306, 307
Faulkin, L. J., 246
Fauré-Fremiet, E., 138
Feeley, J., 181
Feigelson, M., 307
Feigelson, P., 307
Feldherr, C. M., 132
Feldman, L. A., 201, 202
Felkner, I. C., 379
Fenwick, M. L., 301
Fernandes, A., 339, 340
Fernandes, M. V., 237
Ferrari, R. A., 35
Fielding, A. H., 350
Figari, A., 343
Fildes, C., 109
Finck, G., 83, 84
Fink, G. R., 160
Finnerty, W. R., 32
Finter, N. B., 306, 309, 310, 311, 312
Fitz-James, P., 110
Fitz-James, P. C., 170, 171, 172, 175, 176, 180, 181

Fitzpatrick, M., 299, 306
Flaks, J. G., 193, 415
Flanagan, J. F., 206, 207
Fleming, H. P., 177
Flentje, N. T., 339, 340
Flood, A. E., 343
Fluegel, W., 89, 90
Fogel, S., 154, 155, 160
Földes, J., 391, 392
Folkes, J. P., 39
Follett, R. H., 323, 324
Force, E. E., 306
Forro, J. R., 170
Forsby, N., 232
Foster, E. M., 18, 29, 39
Foster, J. W., 32, 171, 172, 177
Fox, M. S., 374, 375, 376, 378, 382, 383, 390
Foy, C. L., 340, 341, 342
Fraenkel, D., 258, 259, 263, 264, 282, 283
Frame, J. D., 329
Franke, W., 339
Franklin, R., 301
Franklin, R. M., 292, 301
Fraser, C. E. O., 113, 122
Frearson, P. M., 197
Freed, B. A., 377, 378
Freedman, L., 351
Freese, E., 174, 178, 179
Freifelder, D., 380, 393
Fric, F., 359
Fried, M., 198
Friedman, R., 293
Friedman, R. M., 293, 298, 299, 300, 301, 302, 304, 305, 309, 312
Friis, J., 158
Fugimoto, Y., 322
Fujimoto, M., 109, 110, 111, 112
Fujinaga, K., 209
Fukada, T., 109
Fukasawa, T., 257, 258, 259
Fukushima, S., 109
Fulco, A. J., 20, 21
Futrelle, C., 8

G

Galanos, C., 257, 262, 263, 264
Galasso, G. J., 120
Gale, E. F., 39
Galis, A., 378, 379
Galzy, P., 160
Ganesan, A. T., 374, 382, 384, 396
Garber, E. D., 354
Garen, A., 408, 409, 411, 412, 413, 414
Garen, S., 411, 413, 414
Garitt, A. J., 276
Garnjobst, L., 94
Garrett, M. T., Jr., 320, 321
Gartner, T. K., 414, 416, 417, 418, 420
Gasic, G., 200
Gastambide-Odier, M., 30, 31, 32, 34
Gaudy, A. F., Jr., 319-36; 323, 324, 325, 326, 327, 328, 331
Gaudy, E. T., 319-36; 325, 326
Gaumann, E., 342, 344, 347
Gauntt, C., 303
Gaylord, W. H., 109, 110
Gebhardt, L. P., 4
Geiduschek, E. P., 381
Geisberger, G., 6
Gellerman, J., 23
Gerber, P., 201, 231
Gerdemann, J. W., 342, 345
Gerloff, R. K., 112
Gerrits, J. P., 329
Gershon, D., 198
Ghalambor, M. A., 257
Gholson, R. K., 32
Ghosh, H. P., 277, 280
Ghuysen, J. M., 276
Gialletti, L., 309
Gibbons, I. R., 138, 139, 140, 144
Gibbons, N. E., 35
Gibson, S. M., 87, 90, 93, 103
Giesbrecht, P., 132
Gifford, G. E., 293, 299, 301, 306
Gilbert, J. M., 273, 281
Gilbert, W., 415
Gilden, R. V., 198, 201, 208
Gilead, Z., 208
Giles, N. H., 154, 158, 160
Gill, J. W., 135
Gillespie, D. C., 96, 97
Gilpatrick, J., 308
Ginoza, W., 381
Ginsberg, H. S., 204, 206, 207, 208, 308
Ginsburg, V., 255, 279, 280, 281, 282, 283, 284
Ginzel, J., 350, 351
Girard, M., 303
Girard, R., 269
Girardi, A. J., 202, 205, 208, 245, 249
Glaser, L., 36, 255, 275, 276, 278, 282, 283
Glasgow, L., 304, 307
Glasky, A. V., 303
Gliddon, R., 141
Glynn, J. P., 246
Goebel, W. F., 255
Goel, K. C., 326
Gogolak, F. M., 112, 113, 114
Gold, E., 211
Goldberg, B. D., 202
Goldberg, I., 214
Goldfine, H., 18, 19, 20, 21, 24, 27, 28, 38
Goldin, A., 246
Goldman, D. S., 17, 34
Goldman, M., 173, 180
Goldman, P., 14, 15, 16, 17, 18
Goldner, H., 245, 249
Goldschmidt, E. P., 417, 418
Goldstein, J., 351
Gollakota, K. G., 373
Golub, O. J., 123
Gomatos, P. J., 59
Good, P., 34
Goodgal, L., 374
Goodgal, S. H., 382, 385, 386, 394
Goodman, R. N., 339
Goodsall, R. A., 39
Goodwin, B. C., 363
Goodwin, T. W., 35
Gordon, F. B., 117, 122, 123
Gordon, I., 301
Gorer, P. A., 242
Gorin, P. A. J., 32, 36
Gorini, L., 401-23; 414, 415, 416, 417, 418, 420
Gorman, J., 151, 160, 184
Gorman, L. R., 232
Gosh, S. N., 301
Gostling, J. V. T., 108
Gottlieb, D., 183
Gould, G. W., 179, 180
Gowers, D. S., 339
Grace, J. B., 90
Gräf, W., 79, 94, 95, 102
Grandchamp, S., 162, 163
Granger, G. A., 238
Grant, G. A., 234
Grassé, P. P., 137, 141
Grayston, T., 123
Green, D. E., 14
Green, D. G., 381
Green, D. M., 380, 392, 393, 394, 395
Green, H., 198, 201, 202, 203
Green, J. H., 174
Green, M., 189-222; 191, 193, 194, 200, 204, 205, 206, 207, 208, 209, 211, 213, 214

Green, M. H., 200
Green, R. G., 108
Greenberg, A. E., 329
Greenberg, E., 277, 280
Greenberg, R. A., 175
Greenblatt, C. I., 20, 22, 23, 24
Greene, E. L., 194
Greene, J. M., 94
Greenfield, R. E., 322
Greenspan, C. M., 393
Grelet, N., 171
Grell, K. G., 131, 132, 133, 135, 143
Grenson, M., 145, 160, 161
Gresser, I., 306, 309
Grieves, R. B., 321
Griffatin, G., 307
Griffiths, M., 94
Grijm-Vos, M., 415
Grijseels, A. J., 339
Grim, R. B., 351
Grimstone, A. V., 131-50; 131, 133, 134, 135, 137, 139, 141, 142, 144
Grisso, D. L., 112, 113, 114, 115, 116, 117
Grollman, A. P., 257
Gros, F., 362
Gross, P. R., 92, 181, 307
Grossberg, S. E., 301, 309
Grosso, E., 195
Grubbs, G. E., 245
Gudima, O. S., 109, 117
Guild, W. R., 381, 386
Gunsalus, I. C., 276, 329
Gussin, G. N., 413
Gutz, H., 153, 154, 156, 158
Guy, L. R., 8

H

Haas, F. L., 377
Habel, K., 197, 199, 200, 202, 228, 230, 234, 244, 304
Haddow, A., 225, 245, 249
Hadjipetrou, L. P., 329
Haefner, K., 157
Haff, R. F., 306
Hagen, P.-O., 38
Haig, D. A., 114
Haight, R. D., 160
Haines, T. H., 23
Hall, C. E., 181
Hall, D. M., 339
Hall, E. W., 35
Hall, M. O., 38
Hallum, J., 293, 294, 296, 304, 305
Halvorson, H. O., 169-88; 151, 160, 170, 171, 172, 173, 174, 175, 177, 178, 179, 180, 181, 182, 183, 184, 323, 373
Hamachige, S., 310
Hamada, C., 209, 210, 211
Hamburg, V. P., 248
Hamparian, V. V., 50
Hampton, R. E., 343, 360
Hamre, P., 123
Hanabusa, J., 109
Hanafusa, H., 231
Hanafusa, T., 214, 231
Hanawalt, P., 184
Hancock, J. G., 353
Hanna, L., 293
Hanson, R. S., 173, 176, 323
Harm, W., 392, 395
Harpaz, I., 308
Harrar, J. G., 337
Harris, G., 164
Harris, P., 21
Harris, P. E., 122
Harris, R. V., 21, 22, 23, 24, 34
Harrison, M. E., 323
Hartwell, L. H., 195, 196, 197, 202
Harvey, C. C., 339
Hashimoto, K., 418
Haskin, M. A., 267, 270, 271
Haslbrunner, E., 163
Hassid, W. Z., 255, 279, 280
Hastings, W. J., 179
Hatfield, W. D., 332
Haughton, G., 226, 227, 228, 237, 243
Hauschild, A. H. W., 378
Hausen, P., 195
Hawthorne, D. C., 151-68; 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 163, 164
Hayashi, J. A., 36
Hayatsu, H., 408, 411
Heath, E. C., 36, 257, 258, 260, 262, 264, 267, 268, 282
Heinen, W., 341
Heitefuss, R., 356
Held, A., 356
Helgerson, R., 328
Helinski, D. R., 407
Heller, E., 292, 294
Hellmann, H., 160
Hellstrom, I., 197, 199, 228, 237, 239, 243
Hellström, K. E., 232, 237, 239, 240, 242, 243, 245, 246, 247
Helmers, E. N., 329
Helmhold, R. J., 114
Henderson, J. R., 300
Henis, Y., 81, 99
Henle, G., 194, 306
Henle, W., 297, 306, 308
Henney, H. R., 181
Henning, U., 411, 412
Henshaw, E., 303
Henze, R. E., 342, 343, 347
Heplar, J. Q., 8
Herde, P., 208, 211, 214
Hermier, J., 177
Hermodsson, S., 300
Herndon, B. A., 338, 340, 343, 346
Herriott, R. M., 374, 375, 376, 377, 381, 386
Hertel, L., 411, 412
Herzenberg, L. A., 226, 227
Heslot, H., 157
Hestrin, S., 254, 255, 276, 277, 278
Hetling, L. J., 322, 330
Heukelekian, H., 323, 327, 329, 331
Hiatt, C. W., 204
Higa, A., 180, 181, 182, 184
Higashi, N., 109, 110, 111, 112, 113, 117, 120
Higuchi, T., 264, 265, 266
Hildebrand, D. C., 346
Hildebrand, J. G., 28
Hildebrandt, A. C., 347
Hilgert, I., 232
Hill, D. L., 40
Hill, P. B., 39
Hill, R., 420
Hill, R. F., 419
Hill, R. L., 15
Hilleman, M. R., 50, 114, 197, 205, 208, 245, 249, 296, 306, 309, 312
Hino, S., 159
Hirth, L., 71
Hitchcock, C., 21, 22
Hitchcock, G., 309, 312
Hitchcock, S., 296
Hitchins, A. D., 179, 180
Ho, M., 292, 293, 294, 295, 296, 301, 304, 305, 306, 309, 310
Hoffman, E. J., 140
Hoffmann-Berling, H., 301
Hofmann, K., 18, 24, 26, 27
Hofschneider, P. H., 301
Hoggan, M. D., 203, 208
Hogness, D. S., 279, 391
Hohl, H. R., 342, 344
Hokin, L. E., 37
Hokin, M. R., 37
Holden, M., 209
Holford, R. M., 118
Holland, J. J., 301, 415

Hollande, A., 132, 137
Holliday, R., 154, 159
Hollinshead, A. C., 231
Holloway, B. H., 380, 393
Holloway, P. W., 20, 24
Holm, G., 238
Holmes, P. K., 178
Holper, J. C., 303
Holt, J. G., 80
Holton, R. W., 34
Hoover, S. R., 329
Hopkins, J. M., 141, 143
Hopps, H. E., 109, 110, 111, 112, 293
Horecker, B. L., 253-90; 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 282, 283
Horikoshi, K., 181
Horn, V., 405
Horne, R. W., 50, 51
Horning, M. G., 18, 29
Horsfall, F. L., 190
Hortsmann, D. M., 50
Horvath, M., 360
Hospodka, J., 321
Hotchkiss, R. D., 371, 375, 376, 378, 381, 382, 385, 386, 394
Hottinguer, H., 162
Houlahan, M. B., 404
Houser, H. G., 278
Housewright, R. D., 375, 376
Houtsmuller, U. M. T., 39
Hovasse, R., 143
How, M. J., 255, 276
Howarth, S., 404
Hoyer, B. H., 202
Hoyle, R. J., 22
Hrishi, N., 157
Hsu, R. Y., 14, 15, 18
Hsu, T. C., 302
Huang, A. S., 292
Huang, R. C., 363
Huck, R. A., 62
Huebner, R. J., 199, 201, 203, 204, 205, 208, 209, 231
Huffaker, R. C., 359
Hughes, W. F., 244, 249
Hulanicka, D., 21, 22, 23, 24, 34
Hulme, A. C., 350
Humphreys, T., 181
Hundin, W. D., 310
Hung Mang-Ming, 390
Hunter, G. D., 39
Hunter, J. R., 175
Hurst, A., 180
Hurst, D. D., 154, 155, 160
Hurst, E. W., 111
Hurwitz, J., 389
Husain, A., 353
Huston, C. K., 28
Hutner, S. H., 94
Hutson, J. C., 412
Hwang, Y. L., 153, 154, 156, 159
Hyatt, H., 303
Hyatt, M. T., 177, 178, 180
Hysell, P., 310

I

Ievleva, E. S., 227
Igarashi, R. T., 172, 180, 181
Iijima, T., 390
Ikawa, M., 31
Ikeda, Y., 152, 160, 301, 390, 417
Ikeola, Y., 181
Imaseki, H., 361
Imshenetsky, A., 86
Imshenetsky, A. A., 78, 79, 81, 96, 98
Inge-Vechtomov, S. G., 153, 157
Inoue, T., 175, 177, 180
Inouye, M., 406
Ionesco, H., 170, 175, 176, 177
Irie, R., 183
Isaacs, A., 292, 293, 294, 296, 297, 298, 299, 301, 304, 306, 308, 309, 310, 311, 312
Iseki, S., 268
Ishidsu, J., 417
Ito, T., 154, 155
Ito, Y., 232
Ivanovics, G., 390
Iwanaga, M., 109, 112, 118, 119, 120, 121

J

Jackson, M. J., 18
Jackson, R. W., 32
Jacob, F., 47, 154, 170, 176, 177, 362, 386, 405
Jaffee, I., 375
Jahn, E., 91, 94, 95, 100
Jahn, T. L., 95, 138
Jakob, H., 164
James, A. P., 154, 155, 157, 163
James, A. T., 18, 19, 20, 21, 22, 23, 24, 26, 28, 34, 35, 38
James, T. W., 320
Jamison, R. M., 198
Jangaard, P. M., 22
Jann, B., 255, 256
Jann, G. J., 180
Jann, K., 255
Jaouni, T., 408, 411
Jarvis, F. G., 31, 36
Jasewicz, L., 329
Jaurégulberry, G., 30
Jawetz, E., 293
Jaye, M., 177
Jenkin, A. M., 113
Jenkin, H. M., 111, 112, 113
Jennings, J., 89
Jensen, F., 201
Jensen, K. E., 293, 306
Jensen, R. A., 377
Jensen, S. L., 14
Jeris, J. S., 333
Johnson, M. J., 31, 36
Johnson, M. L., 309, 310
Johnson, P., 34, 35, 36, 278
Johnston, J. R., 152, 153
Johnstone, H. W., 341
Joklik, W. K., 112, 191, 212, 213, 214, 215, 301, 303
Jokura, K., 258, 259, 283
Jones, D. S., 408, 411, 416
Jones, E. E., 160
Jones, E. P., 209
Jones, J. D., 350
Jones, L. W., 6
Jonsson, N., 232, 245
Jordan, E., 258
Jordon, L. E., 198
Joyon, L., 137
Joys, T. M., 382
Juergens, W. E., 274
Jungwirth, C., 214, 215
Juniper, B. E., 339, 341
Jurand, A., 132, 134

K

Kaars-Sijpesteijn, A., 348
Kaerner, H. G., 301
Kahan, F. M., 393
Kaiser, A. D., 391
Kaji, A., 415
Kaji, H., 415
Kajima, M., 109, 110, 111, 112
Kakar, S. N., 154, 156, 157, 160
Kalckar, H. M., 257, 264, 277, 279, 281
Kallen, R. G., 393
Kallio, R. E., 14, 32
Kalslander, J., 348
Kalyansundaram, R., 347, 352
Kamiya, N., 138
Kamiya, T., 210, 211
Kaneda, T., 29
Kaneshiro, T., 27, 31, 38
Kanfer, J., 37, 38, 39

Kaplan, A. S., 191, 196, 209, 210, 211
Kaplan, S., 410, 411, 413, 414
Karasaki, S., 194
Karassevitch, Y., 160, 161
Karlson, P., 362
Karmen, A., 18, 29
Karnovsky, M. L., 278
Kataja, E., 414, 415, 416, 417, 418, 420
Kates, M., 13-44; 14, 18, 22, 24, 26, 28, 31, 34, 35, 36, 37, 39
Katz, I., 19, 28, 29, 39
Katz, M., 202
Katzenberger, I., 99
Kauffmann, F., 256, 257, 262
Kaufman, B., 34, 35, 255, 278, 279
Kausche, G. A., 99
Kawashima, N., 357
Kawata, T., 175, 177, 180
Kaye, A. M., 195
Ke, Y., 294
Kedar, N., 356
Keeney, M., 19, 28, 29, 39
Keir, H. M., 211
Keitt, G. W., 354
Kellenberger, E., 409
Keller, J. M., 264, 269, 284
Kellock, T. D., 19
Kelly, M. S., 387, 395
Kelly, R. B., 301
Kelman, A., 353
Kelner, A., 376
Kembo, H., 183
Kempe, C. H., 312
Kennedy, E. P., 36, 37, 38, 39, 40
Kennedy, J. R., 132
Kent, G. C., 337
Kent, J. L., 394
Kerjan, P., 182
Kern, H., 342, 344, 352
Kerr, A., 339, 340
Kerridge, D., 138
Kester, A. S., 32
Ketler, A., 50
Keynan, A., 177, 179, 180, 181, 182, 184
Keyworth, W. G., 352
Khera, K. S., 201
Khorana, H. G., 408, 411, 416
Kidson, C., 307
Kiesow, L. A., 114, 115, 117
Kilbourne, E. D., 293, 307
Kimball, R. F., 135
Kimes, R., 205
Kiraly, Z., 347, 351, 356
Kirkam, W. R., 312
Kirkham, D. S., 343
Kirschstein, R. L., 234
Kisban, K., 360
Kit, S., 192, 197, 198, 208, 211, 213, 214, 215, 301, 302
Kitahara, T., 201, 202, 203
Kivi, E. I., 157
Kjellen, L., 207
Klarman, W. L., 342, 345
Klein, E., 227, 228, 230, 233, 239, 243, 244, 245, 246, 247, 248, 249
Klein, G., 223-52; 197, 199, 226, 227, 228, 230, 233, 237, 239, 243, 244, 245, 247, 248, 249
Klein, H. P., 14, 20, 76, 83, 85, 86
Kleinschmidt, W. J., 293, 311
Klement, Z. L., 342, 345, 347
Klemperer, H. S., 296
Klenk, E., 22, 23, 24
Kletter, B., 81, 99
Kleupfel, D., 352
Klieneberger-Nobel, E., 90
Kline, D. M., 354
Klinkowski, M., 342
Kluchareva, T. E., 245
Klug, A., 48, 139
Kluss, B. C., 132
Knipprath, W., 22, 23, 24
Knivett, V. A., 18
Knox, E., 269
Knox, K. W., 269
Kobayashi, Y., 181, 182, 184
Kobuya, G., 17
Koch, M. A., 201, 202
Kodicek, E., 27
Koepfli, J. B., 31
Koerner, J. F., 196, 215
Kofler, L., 77
Kohiyama, M., 417
Kohler, K., 206
Kohno, M., 293
Kohno, S., 293
Koldovsky, P., 244, 246, 249
Komnick, H., 143
Komolrit, K., 325, 326
Kondo, M., 173
Konigsberg, W., 412
Konishi, K., 109
Kono, Y., 293, 294, 295, 296, 305, 306, 309, 310
Koof, H. P., 22, 23, 24
Kools, J. W., 174
Koprowski, H., 201, 237
Koprowski, M., 198
Korn, E. D., 20, 22, 23, 24, 31, 32
Kornberg, A., 36, 183, 269
Kornfeld, R., 283
Kornfeld, S., 283
Kornfield, J., 181, 183
Koskimies, O., 237
Kotelko, K., 269
Kowa, Y., 14, 17
Krähenbühl, C., 307
Krask, B., 177
Krauss, M. R., 371
Kreckova, P., 171
Krieg, N. R., 320
Krischstein, R. L., 309, 310, 311
Krishnan, P., 326, 331
Kröger, E., 256, 262
Krueger, A. P., 4
Krüger, L., 256, 262
Krupka, L. R., 351
Krzemieniewska, H., 77, 78, 82, 86, 90, 91
Krzemieniewska, K., 78
Krzemieniewski, S., 77, 78, 82, 86, 91
Krzywanski, L., 355
Kubo, T., 175
Kubota, V., 109
Kuć, J., 337-70; 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 350, 351, 362
Kühlwein, H., 78, 79, 83, 88, 89, 95, 99, 102
Kuhn, N. J., 37
Kundig, F. D., 34, 35, 255, 278, 279
Kunnes, R. S., 37
Kurahashi, K., 258, 259, 269
Kurek, L. I., 405
Kuriki, Y., 259
Kushner, D. J., 18, 28, 31, 35, 36
Kusuirina, L. A., 81, 96, 98
Kusunose, E., 14, 17, 32
Kusunose, M., 14, 17, 32

L

LaBerge, M., 151, 183, 184
Lacks, S., 382, 383, 385, 388
Lacroute, F., 156, 159, 160, 161, 163
Lacy, S., Sr., 200, 205
Lahr, E. L., 417
Laidlow, P. P., 108
Lakshmanan, M., 355
Lambert, L., 418
Lampson, G. P., 296, 306, 309, 312

Landman, O. E., 383, 385
Landquist, J. K., 111
Lane, D., 381
Lane, W. T., 199, 204, 205, 208, 209
Lang, N. J., 140
Langridge, R., 180, 181, 182
Lanka, E., 413
Lanni, F., 60
Lanyi, J., 381
Larke, R., 309
Larson, V. M., 208, 245, 249
Lascelles, J., 38, 328
Laskowski, W., 152, 157, 159, 164
Latham, H., 303
Latour, N. E., 34
Latour, N. G., 278
Law, J. H., 27, 30, 31, 38
Law, L. W., 234
Lawrence, N. L., 174
Lawrence, W. C., 206
Leadbetter, E. R., 88, 94, 101
Leatherwood, J. M., 281
Leder, P., 408, 411
Lederberg, E. M., 416, 417, 418, 420
Lederberg, J., 7, 387, 416, 417, 418, 420
Lederberg, S., 418
Lee, B. K., 159
Lee, Y. C., 40
Leedale, G. F., 133, 137, 142
Lees, A. M., 20, 22, 23, 24
Lee-Whiting, B., 154, 155
Leidy, G., 375
Lein, J., 404
Lein, P. S., 404
Leitzmann, C., 171, 172
Lejneva, O. M., 227
Leloir, L. F., 277, 279
Lennarz, W. J., 14, 15, 17, 18, 19, 20, 21, 24, 25, 26, 28, 29, 30, 34, 35, 39, 269, 278
Leonard, C. G., 373, 375, 376
Lerman, L. S., 374, 379, 381
Leukel, R. W., 352
Leupold, U., 152, 153, 154, 155, 156, 158, 160
Lev, M., 89
Levin, E., 21, 34
Levine, A. J., 207
Levine, J., 371, 393
Levine, S., 298, 300
Levinson, H. S., 177, 178, 180, 181, 184
Levinthal, C., 181, 182, 184
Levinthal, J. D., 208
Levinthal, M., 160
Levintow, L., 191, 214
Levy, A. H., 297
Levy, H. B., 291-318; 292, 293, 294, 296, 297, 298, 299, 300, 301, 302, 303, 304, 310
Levy, R., 20
Lewandowski, L., 418
Lewin, R. A., 79, 95, 101, 140
Lewis, D., 154, 155
Lewis, M. R., 4
Lewis, S., 339
Lie, S., 375, 377
Lielausis, A., 409
Light, R. J., 14, 15, 17, 18, 19, 20, 21, 24, 25, 26
Lilly, F., 243
Lin, F. H., 163
Lin, H. S., 111, 122, 123
Lindegren, C. C., 151, 152, 153, 154, 156, 159, 160
Lindegren, G., 153, 154, 156, 159, 160, 161
Lindenmann, J., 292, 297, 299, 311
Linder, O. E. A., 233
Lingens, F., 160
Link, K. P., 341
Lipkin, D., 275
Litt, M., 380
Litwin, J., 109, 110
Liu, C., 310
Liu, O. C., 306
Liu, T.-Y., 27
Lochmann, E. R., 164
Lockart, R., 303
Lockart, R. Z., Jr., 298, 304
Lodish, H., 302
Loebeck, M. E., 76, 81, 83, 85, 86
Loebenstein, G., 308
Logan, W. A., 6
Loh, P. C., 213
Lohrmann, R., 408, 411
Long, W. G., 339
Loomis, W. E., 339
Loosli, C. G., 123
Loprieno, N., 156, 157
Lousteau, R. J., 34, 278
Lovrekovich, L., 342, 345, 347, 360
Lüderitz, O., 256, 257, 258, 259, 262, 263, 264, 268, 269, 284
Ludwig, R. A., 345
Luig, N. H., 419
Luke, H. H., 351
Lukezic, F. L., 354
Lukina, R. N., 109, 117
Lumsden, R. D., 349
Lundgren, D. G., 175, 176
Luria, S. E., 227, 264
Luzzati, M. M., 154
Lwoff, A., 45-74; 46, 47, 48, 50, 51, 107, 126
Lynen, F., 14, 15, 16, 17, 18, 26, 37
Lyr, H., 350, 351

M

Maas, W. K., 324
McArthur, C. S., 28
McAuslan, B. R., 196, 208, 211, 214, 215, 301
MacBride, W. D., 208
McCarthy, B. J., 101, 112, 200, 202, 415
McCarty, M., 274, 373
McCarty, P. L., 330, 331, 332, 333
McCloskey, J. A., 30
McCloskey, R. V., 309, 310, 311, 312
McCormick, N. G., 177, 178, 179
McCurdy, H. D., Jr., 77, 88, 89
McDonald, J. C., 81, 84, 85
McDougall, J. K., 419
McFall, E., 324
Macfarlane, M. G., 28, 34, 39
Machin, K. E., 141
McKenna, E. J., 14
McKerlie, M. L., 297
McKinley, T. W., 233
McKinney, R. E., 321, 329, 330, 332
Mackler, B., 163, 164
MacLennan, A. P., 257
Macleod, C. M., 371
MacLeod, C. M., 373
MacLeod, R., 50
McManus, M. A., 143
McMurray, R. E., 322
MacNutt, M. M., 157
Maconkin, M. A., 350, 351
Macpherson, I., 231
McVittie, A., 89, 90, 92, 140
McWhorter, T. R., 323, 327, 331
Madison, R. W., 4
Magee, W. E., 214
Maggio, R., 181
Magni, G. E., 156, 158
Mahadevan, A., 341, 351
Mahdy, M. S., 304
Mahler, B., 417
Mahler, H. R., 163, 164
Mahler, I., 387, 391
Mainx, F., 146
Majernik, O., 359
Majerus, P. W., 15, 16, 17, 18, 26

Mäkelä, P. H., 258, 264, 267, 268, 281, 284
Makino, T., 269
Malaney, G. W., 323
Malca, I., 359
Malek, I., 321
Malmgren, R. A., 233
Mandel, M., 101, 371, 393
Mandel, P., 119
Manganelli, R., 329
Manire, G. P., 111, 112, 120
Manney, T. R., 154, 158, 160
Manson, L. A., 226, 227
Manton, I., 133, 137, 140, 142, 143, 144
Maramorosch, K., 59
Marcovich, H., 156, 163
Marcus, A., 181
Margolin, P., 419
Margolith, P., 81, 96, 99
Marinetti, G. V., 34
Marino, R. J., 8
Marion, C. V., 323
Markham, R., 50, 275
Markovitz, A., 255, 279, 282, 284
Marmur, J., 86, 184, 371, 380, 381, 386, 387, 391, 393
Marquardt, H., 157
Marr, A. G., 27, 31, 38, 322
Marsh, J. B., 19, 20
Marshall, J. M., 132
Marshall, R., 415
Martin, D. B., 18, 29
Martin, H., 270, 273, 274
Martin, J. T., 339, 340, 341
Martin, R. G., 416
Mashiah, P., 109, 110, 118, 122
Mason, D. J., 76, 78, 80, 84, 91, 100
Massaro, E. J., 18
Masters, M., 184
Mathew, S., 77
Matney, T. S., 417, 418
Matsudaira, Y., 154, 155
Matsuhashi, M., 267, 270, 271, 273, 281
Matsuhashi, S., 281
Matsumura, S., 25, 26
Matsushiro, A., 172
Mattern, C. F. T., 142
Mattheis, D. K., 375, 376
Mattheis, M. J., 373, 375, 376
Mattoon, J. R., 160
Mayall, B. H., 177
Mayer, H., 277
Mayer, M. M., 242
Mayer, R. M., 36, 258, 262, 264, 267, 281, 284
Mayer, V., 300
Mayer-Pietschmann, K., 95
Mayor, H. D., 198
Mazliak, P., 339
Mead, J. F., 14, 18, 22, 23
Meadow, P. M., 270
Medawar, P. B., 226
Mecs, E., 293
Meeuse, B. J. D., 137
Megnet, R., 154, 156, 158, 159, 160
Megraw, R. E., 173
Melhus, I. E., 337
Melnick, J. L., 63, 198, 201, 202, 203, 208
Melo, A., 283
Melvin, P., 111
Mendelsohn, W., 4
Mendelson, V., 307
Menke, G. H., 338, 340
Mercer, C., 308
Mercer, E. I., 35
Merigan, T. C., 293, 294, 295, 297, 299, 300, 306, 309
Meselson, M., 416, 417
Mesrobeanu, J., 256
Mesrobeanu, L., 256
Messik, F., 92
Meyer, F., 19, 22, 24
Meyer, G., 342
Michel, G., 18, 33
Michel, M. R., 195, 197, 202
Middlekauf, J. E., 159
Miholits, E. M., 331
Milbury, W. F., 321
Milhaud, G., 171
Millar, R. L., 353
Miller, I. L., 383, 385
Miller, J. F. A. P., 234
Miller, O. L., 135
Millerd, A., 355
Millet, J., 170, 171, 173
Mills, G. T., 255, 284, 386
Mills, R., 308
Milyutin, V. N., 109, 117
Mims, C. A., 309, 310, 311
Minamikawa, T., 342, 344, 361
Ming, S. C., 239
Minoda, R., 109
Minowada, J., 195, 197
Mishizuka, Y., 234
Mishustin, E. N., 78, 86
Mitchell, H. K., 404
Mitsui, Y., 109, 110, 111, 112
Miura, M., 109
Miwatoni, T., 172
Miyake, T., 417
Mizobuchi, K., 417
Moat, A. G., 156
Möller, E., 237, 238, 242, 246
Möller, G., 226, 227, 238, 240, 242, 246
Molteni, P., 195
Monod, J., 320, 321, 324, 362, 386, 405
Monro, R. E., 171, 172
Monroy, A., 181
Montagnier, L., 198, 301
Moon, H. D., 237
Moore, D. E., 117, 118
Moore, R. W., 113
Moorehead, P. S., 201
Morgan, C., 209
Morgan, H. R., 114, 115
Morichi, T., 183
Morowitz, H. J., 180, 181, 182
Morrison, J. M., 292
Morrow, G., 5
Morse, P. M., 157
Mortimer, R. K., 151-68; 152, 153, 154, 155, 156, 157, 158, 159, 160, 163
Moscona, A., 237
Moser, H., 320
Mosevich, T. N., 137
Moulder, J. W., 107-30; 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 126, 127
Mousset, M., 159
Moustacchi, E., 156, 159, 163
Mudd, S. G., 31
Mugard, H., 137
Mühlpfordt, H., 135, 136
Mukai, F. H., 419
Mulder, E. G., 319
Müller, I., 157
Müller, K. O., 342
Müller, M., 134
Munakata, M., 17
Munakata, T., 17
Munch-Petersen, A., 282
Munk, V., 209
Murphy, E. B., 292, 311
Murray, E. G. D., 76, 78, 101
Murray, R. G. E., 101
Murrell, W. G., 170, 171, 172, 175
Myers, W. F., 115, 117
Myrick, N., 323, 324

N

Nachmias, V. T., 143
Naef-Roth, S., 352
Nagai, H., 163

Nagai, J., 21
Nagai, S., 163
Nags, E. H., 178, 180, 181, 184
Naide, Y., 258, 264, 267, 268, 281, 284
Nakakuki, K., 234
Nakano, J. H., 6
Nakata, D., 172
Nakata, H. M., 171
Nasim, A., 156
Nath, V., 133
Nathanson, N., 309
Nathenson, S. G., 275
Nava, G., 378, 379
Naylor, J. M., 363, 364
Neal, A. L., 293
Nelson, N. M., 152
Nemes, M. M., 296, 306, 309, 312
Nesbitt, J. A., III, 269
Nester, E. W., 376, 385, 387, 394
Neufeld, E. F., 255, 279, 280, 283
Neufeld, E. H., 35
Neuhaus, F. C., 270, 272
Neumann, M. G., 100
Neusch, J., 342, 344
Newkirk, J. F., 180
Newmann, J., 387
Newsholme, E. A., 328
Newton, B. A., 111, 120, 138
Nichols, B. W., 21, 22, 26, 34, 35, 38
Niederpruem, D. J., 80, 86
Nielsen, B. I., 113, 117, 118, 120, 121
Nieman, C., 31
Nigrelli, R. F., 94
Nikaido, H., 257, 258, 260, 262, 264, 266, 267, 268, 281, 283, 284
Nikaido, K., 258, 262, 264, 266, 267
Nilhausen, K., 202
Nilson, E. H., 322
Nirenberg, M., 408, 411, 415
Nishimura, A., 109
Nishimura, S., 346, 408, 411
Nissen, P., 35
Nolte, E. M., 81
Nomura, Y., 109, 111
Nonoyama, M., 301
Norén, B., 77, 78, 81, 82, 83, 84, 85, 95, 96, 97, 98, 99
Norris, A. T., 18, 19, 20, 21, 24, 25, 26
Norris, J. R., 174
Notake, K., 109
Notani, G. W., 412
Novelli, G. D., 98, 175
Noveroske, R. L., 345
Novick, A., 320
Novosel, D. L., 111, 114, 122, 123
Noyes, W. F., 198
Nozima, T., 301, 302
Nugteren, D. H., 24
Nye, J. F., 38

O

Oates, K., 133, 140
O'Brien, E., 113
O'Brien, P. J., 283
O'Brien, R. T., 180
Ochoa, S., 301
O'Connor, D. J., 328
O'Connor, R., 177, 179
O'Conor, G. T., 204
Odaka, T., 206
Oeser, H., 152, 160
Oetker, H., 81, 84, 88, 98
Officer, J. E., 109, 110, 111, 120, 122
Ogata, S., 109
Ogur, M., 160, 161, 163
Ogur, S., 160, 161, 163
Ohno, S., 301, 302
Ohtaka, Y., 181
Ohtsuka, E., 408, 411
Oishi, M., 180, 182, 183, 184, 388
Okada, H., 160
Okada, Y., 406
Okazaki, R. O., 284
Okazaki, T., 284
Okita, S., 175
Okubo, S., 377, 380, 391, 392, 393, 394, 395
Okuda, R., 33
Old, D., 415
Old, L. J., 225, 227, 228, 243, 245, 246, 249
O'Leary, W. M., 18, 24, 25, 26, 27
Omura, H., 211
O'Neill, C., 308
O'Neill, G., 257
Onore, M., 34
Opara-Kubinska, Z., 380
Oppenoorth, W. F. F., 164
Ordal, E. J., 79, 86, 93, 94, 95, 319
Ordal, Z. J., 177
Orellana, R. G., 349, 350
Orford, H. E., 329
Orias, E., 414, 416, 417, 418, 420
Ørskov, F., 255
Ørskov, I., 255
Orth, G., 198
Osborn, M. J., 183, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 282, 283
Oshima, Y., 156, 160
Ossowski, L., 115
Osterbach, D. H. O., 281
O'Sullivan, A., 182, 183, 388
Ouchi, S., 160
Overath, P., 14, 15, 17
Owen, M. E., 157
Owens, R. E., 293
Oxford, A. E., 81, 96, 99
Oxman, M. M., 302
Ozeretskovskaya, O. L., 362

P

Padron, A., 306
Page, L. A., 107, 124
Pakula, R., 371, 378
Palameta, B., 35
Palecek, E., 393
Palm, J., 226, 227
Palmer, F. E., 319
Palmiter, D. H., 339
Panos, C., 8
Paoletti, C., 198, 201
Pardee, A. B., 184
Pareira, H. G., 231
Park, J. T., 270, 273
Park, S. W., 179
Parke, M., 133, 140
Parks, L. W., 157, 159, 160
Parry, J. M., 154
Parsons, J. A., 135
Pasternak, G., 227, 230
Pate, J. L., 79, 95
Patel, P. N., 338, 340
Paucker, K., 297, 305, 306
Paul, F. J., 204
Payne, F. E., 194, 213
Pazur, J. H., 280
Pearlman, M., 261
Pease, D. C., 139
Pecker, M., 34
Pelc, S. R., 113, 117, 118, 120, 121
Pelroy, G., 161
Pena, A., 307
Pene, J. J., 382, 384
Penman, S., 192, 213, 303
Pepinsky, J. B., 329
Pepper, R. E., 173
Péré, G., 152, 161, 164, 405
Perkins, H. R., 111
Perlmann, H., 237
Perlmann, P., 237, 238
Perrin, D. R., 342, 343, 346, 363
Perrin, J., 115

Perry, D., 378
Perry, J. J., 172
Person, C., 363
Pestka, S., 415
Peters, E. A., 234
Peters, J. M., 111
Peters, N., Jr., 156
Peterson, J. E., 81, 84, 85
Peterson, W., 208
Petralli, J. K., 309
Pett, D., 208, 211, 214
Pfeffer, C. R., 163
Phillips, M. M., 152, 153
Pickett, M. J., 6, 7
Piekarski, L. J., 214, 301, 302
Pierard, A., 17, 34, 160, 161
Pieringer, R. A., 37
Pierog, S., 404
Pigg, C. J., 160
Pina, M., 191, 200, 204, 205, 207, 208, 209, 213, 214
Pineau, E., 171
Pinoy, P. E., 86, 89
Piper, S. H., 339
Pipes, W. O., Jr., 321, 331
Pitelka, D. R., 131, 136, 138, 141
Pittman, D., 156, 163
Placak, O. R., 329
Plaut, W., 135, 136
Pochiari, F., 296
Podolyan, V. Ya., 109, 117
Pohland, F. G., 332
Poindexter, J., 102
Pokorny, B. A., 307
Polasa, H., 206
Polh, S., 27
Pollard, M., 109, 113, 117, 118, 119
Polli, E., 195
Pollikoff, R., 306
Polsinelli, M., 378
Pons, M., 301
Ponten, J., 201
Ponten, J. A., 201
Pope, J. E., 201, 208
Porges, N., 329
Porter, J. W., 14, 15, 18
Porterfield, J. S., 306
Postic, B., 295, 310
Powell, J. F., 175, 179
Powelson, D., 76, 78, 80, 84, 91, 100
Powelson, D. M., 80, 90, 100
Prakasam, T. B. S., 325
Prehn, R. T., 225, 228, 229, 233, 243, 244
Preiss, B., 32
Preiss, J., 277, 278, 280, 282
Prescott, D. M., 132, 135
Preston, R. E., 194
Pricer, W. E., Jr., 36
Pringle, R. B., 351, 352
Pringsheim, E. G., 137
Prinzie, A., 301, 309, 312
Pritchard, R. H., 382, 384, 386, 387, 395
Pugh, E. L., 15
Pugh, E. S., 15
Pugh, W. E., 203
Purdy, W. C., 324
Pyne, C. K., 136

Q

Quackenbush, F. W., 342, 343, 347
Quan, A. L., 117, 122, 123
Quehl, A., 88
Quinn, G., 192, 194, 195, 196, 197

R

Rabson, A. S., 204, 234
Rada, B., 297, 300, 304
Raffel, S., 8
Ragetli, H., 308
Rahe, J., 341
Raistrick, H., 256
Ramanathan, M., 321, 322
Rampton, V. W., 140
Ramsey, S., 91
Rancourt, M. W., 163
Randall, Sir John, 140, 141, 143
Ranganathan, B., 163
Rao, B. S., 327, 328, 331
Rao, C. V. R., 326
Rao, S. S., 322, 330
Raodin, R. G., 201
Raper, K. B., 99
Rapin, A. M. C., 257, 264, 277
Rapp, F., 198, 201, 202, 203, 208
Rapp, R., 201
Ratledge, C., 14, 17
Raut, C., 163
Ravin, A. W., 371, 373, 388
Raynaud, M., 256
Rayns, D. G., 133, 140
Reale-Scafati, A., 416
Rebeyrotte, N., 386
Rebiere, J. P., 198, 201
Recondo, E., 277
Reed, S. E., 109, 110, 111, 112
Reeder, R., 181
Reeves, R. E., 34, 278
Reich, E., 292
Reich, R. R., 206
Reichenbach, H., 79, 88, 95
Reid, P. J., 417
Reilly, B., 171, 175
Reilly, B. E., 371-400; 373, 392, 393, 394, 395
Reilly, C., 162, 163
Reinicke, V., 307
Reissig, J. L., 404
Rennier, R., 339
Revel, M., 303
Ribbons, D. W., 115
Rich, M., 227
Rich, S., 339
Richards, C. M., 177
Riemann, H., 177, 179
Riker, A. J., 347
Rilling, H. C., 94
Rimparr, R. H., 342, 344
Rinaldi, A. M., 181
Ris, H., 136
Risse, H. J., 257, 262, 263, 264
Ritter, D. B., 112
Ritz, E., 371
Roane, P., 211
Robbins, P. W., 256, 264, 265, 266, 267, 269, 283, 284
Roberts, C., 151, 152
Roberts, E. A., 339
Roberts, M. F., 341
Robinow, C. F., 170, 177
Robison, M., 386
Rode, L. J., 177
Rodriquez, J., 194
Roe, A. S., 371
Roelofsen, P. A., 339
Roger, M., 381
Rogers, H. J., 276
Rogolsky, M., 177
Röhlich, P., 134
Roizman, B., 211, 292
Rollins, E. L., 281
Roman, H., 152, 153, 154, 155, 159, 160, 162
Romanko, R. R., 351
Romig, W. R., 377, 382, 384, 391, 392, 393, 395
Roosa, R. A., 234
Rose, H. M., 209
Rose, J. A., 206
Roseman, S., 34, 35, 255, 278, 279
Rosen, B., 408
Rosen, S. M., 256, 257, 258, 260, 261, 262, 263, 264, 282, 283
Rosenau, W., 237
Rosenbaum, J. L., 140
Rosenberg, A., 34
Rosenberg, B. H., 380

Roshanmanesh, A., 156, 160, 161
Ross, A., 308
Ross, A. F., 308, 340, 350, 351
Ross, J., 208, 211, 214
Ross, M. R., 112, 113, 114
Rossner, W., 79
Rotem, Z., 293, 304, 306
Roth, L. E., 132, 134, 141, 142, 143, 144
Rotheim, M. B., 388
Rothfield, L., 36, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266
Rousta, M., 211
Rowe, A. J., 138
Rowe, W. P., 199, 201, 202, 203, 204, 205, 208, 209
Rownd, R., 381
Roze, V., 274
Rubin, B. A., 203, 340, 356, 362
Rubin, H., 231, 244, 249
Ruchhoft, C. C., 329
Rucker, R. R., 94
Rudolph, K., 356, 357
Rudzinska, M. A., 134, 136, 137, 143
Rupert, C. S., 392, 395
Rusch, H. P., 183
Ruschmann, E., 257, 262, 263, 264
Ruschmann, G. K., 195, 197, 202
Russell, W. C., 211
Ruthmann, A., 132, 133, 143
Ryhage, R., 27
Rytel, M., 293
Ryter, A., 172, 175, 176, 177

S

Sabin, A. B., 201, 202
Sachs, L., 195
Sadasivan, T. S., 352, 353
Sadler, W., 89, 91, 92
Sadoff, H. L., 174, 175
Sagan, L., 136
Sager, R., 136, 145, 146
St. John, R., 163
St. Lawrence, P., 403, 407
St. Vincent, L., 312
Saito, H., 152, 390
Saito, K., 28
Sakai, R., 344, 355
Sakai, T., 268
Saksela, E., 201
Salle, A. J., 180
Saltmarsh-Andrew, M., 264, 265, 266
Salton, M. R. J., 111, 112, 256
Salzman, N. P., 212, 213, 214, 302
Samborski, D. J., 355, 362
Samijima, T., 111
Sanawal, B. D., 352
Sanders, K., 301
Sanderson, A. R., 274
Sands, S. M., 152, 153
Sandstedt, K., 362
Sarabhai, A. S., 410
Sarachek, A., 163
Sastry, P. S., 31, 37, 39
Satir, B., 140
Sauer, F., 15
Sauer, G., 209
Sauerbier, W., 183
Sawyer, C. M., 332
Sawyer, C. N., 320, 321, 329, 332
Saxén, L., 231
Sayre, R. M., 355, 362
Sayter, H. S., 181
Schachter, J., 113, 122, 125
Schaeffer, P., 170, 171, 175, 176, 177, 371, 374
Schafer, M., 387
Scharff, M. D., 214
Schatz, G., 163
Schechter, E. M., 113, 117, 118, 119, 120, 121
Scheffer, R. P., 346, 351, 352
Schell, K., 204, 205, 208
Scherbaum, O. H., 137, 138
Scheuerbrandt, G., 18, 19, 20, 21, 24, 29, 30
Schieferstein, R. H., 339
Schlecht, S., 257, 262, 263, 264
Schlenk, H., 23
Schlesinger, M. J., 308
Schlosshardt, J., 257, 262, 263, 264
Schmidt, F., 257, 262, 263, 264
Schnathorst, W. C., 356
Schneider, A. M., 387, 390, 391
Schneider, L., 120, 134
Schonne, E., 296, 297, 301, 309, 312
Schrevel, J., 142
Schroder, T. V., 382, 384, 386
Schroepfer, G. J., Jr., 19
Schroth, M., 346
Schulman, H. M., 389
Schulte-Holthausen, H., 257, 262, 263, 264
Schultz, E. W., 4
Schultze, K. L., 322
Schuster, F., 141
Schwaier, R., 156, 157
Schwartz, D. P., 19
Schwartz, J. H., 416
Schwartz, N., 419
Schwarz, V., 274
Scott, F. M., 339
Scott, K. J., 355, 358, 361
Seaman, E., 371
Seaman, G. R., 140
Sebring, E. D., 212, 213, 214, 302
Sela, I., 308
Sellers, M., 391
Sellers, R. F., 299, 306
Sels, A., 152, 161, 164, 405
Senez, J. C., 328, 329, 331
Senior, N., 111
Seno, T., 159
Servizi, J. A., 329, 330, 331
Seshachar, B. S., 132
Setlow, R. B., 183
Sharon, N., 117, 118, 119, 277, 278
Sharp, E. L., 359
Shatkin, A. A., 112
Shatkin, A. J., 212, 213, 214, 292, 302
Shaw, D. R. D., 282
Shaw, M., 355, 361, 362, 363, 364
Shaw, N., 34, 255, 278
Shein, H. M., 201
Sheinin, R., 192, 194, 195, 196, 197, 198
Shen, L., 277, 278, 280
Shen Shan-Chiung, 390
Sherman, F., 154, 159, 160, 162, 163, 164
Sherr, S. I., 38
Shibuya, I., 35
Shiff, E. E., 177
Shigenaka, Y., 141, 142, 143
Shindala, A., 320
Shinmyo, A., 156
Shope, R. E., 231, 293
Shult, E. E., 153, 154, 156, 159
Shuster, C. W., 329
Sibley, W. A., 309
Sicard, A. M., 388
Siddiqi, O., 408, 409, 419
Siddiqui, W. A., 136, 137
Siegal, S. M., 339
Siegel, A., 341
Siegel, B. V., 8, 329, 330
Siegenthaler, P.-A., 177
Sierra, G., 180
Sigal, I. H., 277

Sigal, N. J., 277
Sigel, M., 307
Signer, E. R., 411, 412
Silk, J. A., 111
Silvester, N. R., 138, 140, 141
Simkovic, D., 232
Simmons, R. J., 173, 174
Simon, L., 303
Simon, M., 393
Simpson, W. L., 163
Singer, S. H., 310
Singh, B. N., 77, 78, 81, 96, 98
Sinsheimer, R. L., 301
Sire, J., 159
Sirotnak, F. M., 380
Sisler, H. D., 59
Sistrom, W. R., 94
Sitte, P., 339
Sizer, I. W., 363
Sjögren, H. O., 197, 199, 225, 228, 229, 230, 232, 243, 244, 245, 248
Skalka, A., 389
Skerman, V. B. D., 76
Skoss, J. D., 341
Slade, H. D., 378
Sleigh, M. A., 138
Slepecky, R. A., 171, 177
Slettenmark, B., 227, 243
Slonimski, P. P., 152, 154, 159, 161, 162, 163, 164, 405
Sly, W., 159
Smadel, J. E., 293
Smart, K. M., 307
Smith, E. E. B., 255, 284, 386
Smith, I., 184
Smith, K. C., 183
Smith, K. O., 205
Smith, L., 328
Smith, N. R., 76, 78, 101
Smith, S., 146
Smith-Keary, P. F., 419
Snellbaker, L. F., 296, 297, 301
Socolofsky, M. D., 100
Söll, D., 408, 411
Solnetzewa, L. I., 81, 83, 86, 98
Solymosy, F., 347, 360, 362
Somlo, M., 152, 161, 164, 405
Sonnabend, J. A., 297, 298, 301
Sonneborn, T. M., 145, 146, 240
Sora, S., 156
Soriano, S., 101
Sorsoli, W. A., 159
Southwick, M. D., 339
Speece, R. E., 326
Spence, K. D., 159, 160
Spencer, E. Y., 345
Spencer, H. T., 375, 376
Spencer, J. F. T., 31, 32, 36
Speyer, J. F., 408
Spizizen, J., 371-400; 171, 175, 176, 373, 374, 375, 377, 381, 389, 392, 394, 395, 396
Spotts, C. R., 171, 172, 415
Sproston, T., 341
Spudich, J., 183
Spurr, H. W., 347
Spyrides, G. J., 279
Srb, A. M., 156, 159
Sreenivasaya, M., 77
Srinivasan, P. R., 387
Srinivasan, V. R., 171, 173, 323
Stacey, G. J., 111
Stacey, M., 255, 276
Stadler, J., 407
Stadtman, T. C., 332
Stahmann, M. A., 351, 355, 356, 357, 358
Stakman, E. C., 337
Stanacev, N. Z., 31
Stancek, D., 300
Stanier, R. Y., 46, 76, 82, 83, 86, 90, 91, 94, 100, 124, 127, 415
Staples, R. C., 356, 357
Starr, M. P., 76, 98
Starr, T. J., 86, 109, 113, 118, 119
Staub, A. M., 256, 257, 259, 262, 264, 266, 268, 269, 284
Steed, P., 101
Steinberg, C. M., 409
Steinberg, W., 169-88; 179, 180, 181, 182, 183, 184
Steinert, M., 136
Stenkvist, B., 201
Stent, G. S., 420
Stern, D., 374, 375
Stevens, A. R., 132
Stevens, C. L., 281
Stevenson, D., 301
Stewart, B. J., 175
Stewart, R. C., 306
Stierlin, H., 256, 257, 262
Still, J. L., 26, 27, 31
Stinebaugh, S. E., 198
Stinebring, W. R., 292, 293, 294, 295, 296, 298, 299, 300, 304, 305, 309, 310
Stjernswärd, J., 233, 245, 249
Stocker, B. A. D., 258, 262, 264, 266, 268, 284, 385
Stockert, E., 227, 246
Stodolsky, M., 380, 391, 392, 393, 394, 395
Stoffel, W., 20
Stoker, M., 198
Stoker, M. G. P., 48
Stollar, V., 195
Stolp, H., 98
Stone, G. E., 135
Stone, J. D., 114
Storck, R., 181
Stouthamer, A. H., 329, 330
Strange, R. E., 175, 179, 180
Strauss, B., 380, 391, 392, 393, 394, 395, 419
Strauss, B. S., 404
Strauss, N., 380, 387, 393, 394
Streisinger, G., 406
Streissle, G., 59
Stretton, A. O. W., 410, 411, 412, 413, 414
Strobel, G. A., 359
Strominger, J. L., 262, 263, 267, 270, 271, 272, 273, 274, 275, 276, 281, 282, 284, 377
Struve, W. G., 270, 272
Stück, B., 248
Stumpf, P. K., 14, 15, 17, 21
Sturtevant, A. H., 401
Stuy, J. H., 180, 183, 374, 375, 382, 385
Subbaiah, T. V., 258, 262, 266, 284
Subrahmanyan, T., 309, 311
Subramanian, D., 353
Sueoka, N., 180, 182, 183, 184, 372, 388
Summers, D., 192
Sundararajan, T. A., 257, 264
Surdin, Y., 159, 160, 161
Suskind, S. R., 405, 419
Susman, M., 409
Sussman, A. S., 170
Sussman, M., 183
Sutherland, I. W., 258, 262, 263
Sutton, R. N. P., 306
Suzuki, A., 109
Suzuki, H., 386
Svet-Moldavsky, G. J., 248
Svihla, G., 136, 137
Svoboda, J., 232
Swain, T., 351
Swamy, R. N., 355
Swanson, W. H., 8
Sweet, B. H., 197
Sweet, D. V., 339
Szilagyi, J. F., 38
Szilard, L., 320
Szolyvay, K., 411

Szulmajster, J., 170, 171, 172, 173, 175, 176, 182
Szybalski, W., 380, 382

T

Taguchi, F., 201, 208
Tajima, M., 109, 111
Takabe, T., 183
Takagi, A., 175, 177, 180
Takagi, J., 390
Takahashi, I., 176, 372, 387, 390
Takahashi, T., 152, 153, 154, 156, 160
Takakuma, M., 355
Takano, K., 293, 306
Takase, N., 355
Takeda, Y., 173
Takei, S., 361
Takemoto, K. K., 303
Takeshita, M., 36, 261
Talamo, B., 278
Talboys, P. W., 346
Tamaki, H., 153
Tamm, I., 59, 191
Tamura, A., 109, 111, 112, 113, 114, 118, 119, 120, 121
Tanami, Y., 109, 113, 118, 119
Tapley, W. W. C., 256
Tartar, V., 145, 146
Taruo, P., 151, 184
Tatum, E. L., 7, 292
Taylor, A., 269
Taylor, G., 205, 208
Taylor, J., 297, 301
Taylor, M. J., 390
Taylor, R. M., 300
Terasawa, H., 341
Terui, G., 160
Terzaghi, E., 406
Teulings, F. A. G., 329
Tevethia, S. S., 202
Thaxter, R., 75, 77, 90, 91, 99
Theriault, E. J., 322, 324
Thiery, J., 139
Thimann, K. V., 78
Thomas, C. A., 348, 349, 350
Thomas, C. A., Jr., 381
Thomas, D. C., 206, 207
Thomas, M., 201
Thomas, R., 371, 377, 416, 417, 418, 420
Thompson, C. C., 164
Thorne, C. B., 176, 390
Thorpe, D., 405
Thrower, L. B., 362
Tinelli, R., 264, 266
Ting, R. C., 234
Tipper, D. J., 272, 273, 274, 276, 377
Titoli, F., 309
Todaro, G. J., 198, 201, 202, 203, 204, 302, 311
Toivonen, S., 231
Tokoyasu, K., 137, 138
Tokunaga, T., 391
Tokuno, S., 419
Tolmach, L. J., 374, 379, 381
Tomasz, A., 378
Tomcsik, J., 174, 175
Tomiyama, K., 344, 346, 355
Tomlinson, H. D., 330
Topps, J. H., 341
Torlone, V., 309
Törö, I., 134
Tournier, P., 45-74; 48, 50, 51
Trager, W., 134, 136
Traube, E. S., 292, 293, 295, 310
Trautner, T. A., 391, 392
Treadwell, P. E., 180
Tremolieres, J., 307
Trentin, J. J., 205, 208
Tribby, I. I. E., 114, 117, 118, 120, 121, 122, 123
Trower, L. B., 355, 361
Trupin, J., 408, 411
Tsoi, A., 160
Tsuda, Y., 419
Tsugita, A., 406
Tucker, J. B., 143
Tukey, H. B., 339
Tulloch, A. P., 31, 32, 36
Tuppy, H., 163, 164
Turner, H. C., 199, 201, 208, 209, 231
Tyrell, D. A. J., 305, 306
Tytell, A. A., 296, 306, 309, 312

U

Uchida, T., 256, 264, 269, 284
Uchiyama, H., 180
Udvardy, J., 380
Uehara, K., 342, 345
Uetake, H., 269
Ugoleva, N. A., 112
Ullstrup, A. J., 342, 343, 347, 352
Umemura, Y., 356
Unwin, C. H., 345
Uritani, I., 340, 342, 344, 355, 356, 357, 360, 361, 362
Usui, M., 234

V

Vagelos, P. R., 14, 15, 16, 17, 18, 26, 29
Vahle, C., 78, 81, 88
Vainio, T., 231, 237
Valentine, R. C., 109, 416
van Deenen, L. L. M., 39
Vandeputte, M., 234
Van der Want, J., 308
van Gils, H. W., 328
Van Knippenberg, P. H., 415
van Niel, C. B., 46
van Ravenswaay, J. C., 415
Van Rossum, W., 305, 309
van Veen, W. L., 319
Vary, J. C., 169-88; 177, 178, 180
Vasquez, C., 194
Veldstra, H., 415
Vender, J., 116
Venema, G., 382, 384, 386
Vickerman, K., 135, 136
Vilcek, J., 297, 300, 304
Vinter, V., 171, 172, 175, 177, 180
Viswanth-Reddy, M., 353
Vivier, E., 132, 142, 143
Voelz, H., 78, 79, 90, 91, 92, 100
Vogel, H. J., 135
Vogt, M., 195, 196, 197, 198, 199, 202
Volcani, B. E., 22, 34, 35, 39
Volk, W. A., 281
Voll, M. J., 382, 385
von Borstel, R. C., 156
Von Praagh, T., 308
Vorbeck, M. L., 34

W

Waddington, C. H., 146
Wagner, R. P., 156, 157, 160, 404
Wagner, R. R., 291, 292, 294, 297, 299, 300, 301, 306
Wahren, B., 227, 244, 249
Wain, R. L., 341
Wake, R. G., 182, 183
Wakil, S. J., 14, 15, 17, 18, 20, 22, 24
Walczak, W., 378
Waldron, J. D., 339
Walker, J. C., 338, 340, 341, 350, 356, 364
Walker, P. D., 174, 180
Wallace, J., 340, 348, 350
Wallach, D., 226
Wallen, L. L., 32
Walter, H., 120
Warr, J. R., 140

Warren, J., 293, 306
Warth, A. D., 172, 175
Washington, D. R., 322, 330
Wassef, M., 31, 36
Wasson, G., 14, 15, 18
Watanabe, M., 417
Watanabe, T., 417
Waters, L., 181
Watson, B. F., 86
Watson, D. H., 211
Watson, J. D., 190
Watson, M. R., 138, 141
Watson, R. O., 112
Watts-Tobin, J., 406
Wax, R., 184
Weaver, J. M., 243
Webb, J. P. W., 19
Webb, S. J., 28
Weber, D. J., 356, 358
Weber, E. J., 34, 35, 36, 278
Webster, R. E., 413
Wegner, G. H., 18, 29, 39
Weibull, C., 95
Weidel, W., 257, 274
Weigert, M. G., 411, 412, 413
Weil, R., 195, 197, 202
Weinberg, E., 180, 181, 182, 184
Weiner, I. M., 258, 263, 264, 265, 266, 282, 283
Weintraub, M., 308
Weiser, R. S., 232, 238
Weismyer, H., 258
Weiss, D. W., 244, 246, 249
Weiss, E., 108, 109, 111, 114, 115, 116, 117, 120
Weiss, S. W., 214
Weissman, C., 301
Weissman, S. M., 206
Werner, B., 238
Werner, M. M., 157
Wesslen, T., 201
Westphal, O., 255, 256, 257, 258, 259, 262, 263, 264, 268, 269, 284
Westwood, M. A., 306, 309, 312
Wetter, C., 49
Wheat, R., 257, 262, 263, 264
Wheat, R. W., 281
Wheatland, A. B., 322
Wheeler, H., 351
Wheelock, E. F., 293, 309
Wheelock, F., 295
White, A., 307
White, J. R., 415
Whitfield, H. J., 416
Whitney, H. S., 363
Wiame, J. M., 159, 160, 161
Wiberg, J. S., 196, 215
Wickerham, L. J., 151
Wiener, A., 208
Wigzell, H., 226
Wilbur, J., 309
Wilcox, R. L., 330
Wilcox, W. C., 206
Wildner, G., 164
Wildy, P., 48, 50, 211
Wilhelm, R. C., 411, 413, 414
Wilkie, D., 154, 155, 159, 162, 163
Wilkinson, J. F., 328
Wilkinson, R. G., 258, 264, 268, 284
Will, S., 163, 164
Williams, A. H., 350
Williams, B. J., 354
Williams, E. B., 338, 339, 340, 341, 343, 345, 346, 348, 350, 351
Williams, M. G., 194
Williams, P. J. LeB., 38
Wilson, A. R., 340
Wilson, D. B., 237, 279
Wilson, F., 163
Wilson, I. S., 322, 323
Winder, F. G., 14, 17
Winderman, S., 160
Windisch, S., 152, 153, 160
Wingard, S. A., 337
Winge, O., 151, 152
Winget, C., 300
Winn, H. J., 243
Winocour, E., 195, 199, 200
Winogradsky, S., 95
Wise, E. M., Jr., 273
Witkin, E., 417
Wittwer, H., 339
Wittwer, S. W., 339, 340
Woese, C. R., 170, 178, 180, 181, 182
Wohlfarth-Bottermann, K. E., 143
Wolf, J., 174
Wolfe, R. S., 97, 319, 332
Wolff, E., 237
Wolin, E. A., 332
Wolin, M. J., 332
Wollman, E. L., 177
Wolman, S. R., 201
Wolpert, L., 143
Wolstenholme, D. R., 135
Wood, B. J. B., 21, 22, 26, 34, 35, 38
Wood, E., 282
Wood, J. M., 332
Wood, R. K. S., 350, 353
Woods, D. D., 6
Woods, N. A., 76, 94, 99
Woodward, V. W., 419
Wooltorton, S. C., 350
Work, E., 269
Wright, A., 264, 265, 266, 267, 269, 284
Wright, B. E., 183
Wyss, O., 100, 379

Y

Yabe, Y., 205, 208
Yagi, T., 35
Yamada, Y., 339, 340
Yamagami, H., 386
Yamamoto, S., 175
Yamamura, Y., 14, 17
Yamasaki, T., 154, 155
Yanagashima, N., 163
Yanagita, T., 183
Yang, S. P., 159
Yanc, N., 183
Yanofsky, C., 403, 405, 407, 411, 414, 418
Yarwood, C., 308
Yasumori, H., 341
Yengoyan, L. S., 31
Yoneda, M., 173
Yoshida, A., 174
Yoshida, T., 153, 159
Yoshikawa, H., 180, 182, 183, 184, 372, 388
Yotsuyanagai, Y., 162
Young, F. E., 372, 373, 374, 375, 377, 381, 396
Young, I. E., 171, 172, 180
Young, M. R., 132
Young, R. D., 245
Youngner, J. S., 292, 293, 294, 295, 296, 298, 299, 300, 305, 309, 310
Youngner, S. S., 304, 305
Yourno, J. D., 419
Yu, L. M., 360
Yuan, C., 22
Yusa, A., 137

Z

Zahler, S. A., 89, 90, 92, 112
Zaitlin, M., 341
Zakay-Roness, Z., 114
Zakharov, I. A., 153
Zalkin, H., 27, 38
Zamenhof, S., 371, 387
Zeece, S., 93
Zelazna, I., 377
Zeleznick, L. D., 257, 258, 261, 262, 263, 264, 282, 283
Zevenhuizen, L. P. T. M., 277
Zilber, L. A., 227
Zill, L. P., 35
Zimm, B. H., 381
Zimmermann, F., 156, 157

Zimmermann, F. K., 156, 157
Zinder, M., 302
Zinder, N. D., 410, 412, 413, 416
Zscheile, F. P., 359
Zubay, G., 383, 384
Zucker, M., 363
Zwickey, R. E., 205, 208

SUBJECT INDEX

A

Absence of stable mRNA in spores, 180
Acetyl-CoA carboxylase
in fatty acid biosynthesis, 14
N-Acetylglucosamine acid incorporation of, 270
N-Acetylmuramic acid incorporation of, 270
Acid sensitivity
viral classification criteria, 50
Acridine mutations
intragenic suppression, 406
Action
mechanisms of suppressor, 412
mode of suppression, 402
of penicillin, 273
Action of cycloserine on glycopeptide, 274
Action of interferon, 296
Activated sludge
review and kinetics of, 320
Activity
enzyme in plant resistance, 355
Acyl carrier protein
in saturated fatty acid biosynthesis, 15
Addition of side chain sugars teichoic acids, 275
Adenovirus, 204
enzyme induction, 207
helper virus, 203
macromolecular synthesis, 207
replication, 206
SV40 hybrid, 203
SV40 tumor antigen, 203
T antigen, 208
transformation, 208
Aerobic pathway
in unsaturated fatty acid biosynthesis, 18
Age
sequential substrate removal, 325
Agents with action similar to streptomycin, 415
L-Alanine-induced trigger germination, 179
Allogeneic inhibition
tumor antigens, 237
Amber mutants
nature of, 409
Amber suppressors
nature of, 411
Anaerobic digestion
waste water, 332
Anaerobic pathway
in unsaturated fatty acid biosynthesis, 24
Animal virus
classification, 191
DNA, biosynthetic modification
induced by, 189-222
neoplasia, 190
groups
diversity of, 190
Antibiotic activity
myxobacteria, 95
Antibiotic production
myxobacteria, 99
Antibodies
humoral, 242
Antigen
histocompatability, 226
localization, 226
mechanisms determining, 229
nature of tumor-specific transplantation, 227
neoplastic cells, 223
O lipopolysaccharide, 256, 257
psittacosis group, 113
spore-specific, 174
SV40 tumor, 201
SV40 tumor in adenovirus, 203
T adenovirus, 208
transplantation in SV40 transformed cells, 202
tumor, 223-52
tumor viruses, 230
virus-free transformed cells, 199
virus-transformed cells, 198
Antigenicity
viral classification, 58
Antigenic loss
escape from immunological surveillance, 247
Antigenic side chains
biosynthesis in E. coli, 267
biosynthesis in Salmonellae, 264
Antigenic strength
tumor, 224
Antigenic tumor cells
important host defense mechanisms, 233-43
Antiviral action mechanisms
interferon, 300
Antiviral effect of interferon in
heterologous cells, 305
Antiviral state induction
interferon-exposed cells, 297
Assimilation
oxidative, 326
ATP production
growth rate, 329
Auxotrophic mutants
suppression, 414
Axostyles
in protozoa, 142

B

Back mutation
suppression, 401
Bacteria
developmental changes during the formation and breaking of the dormant state in, 169-88
relation of the psittacosis group to, 107-30
sporogen, 171

Bacterial lipopolysaccharide biosynthesis
characterization, 256
control mechanisms, 269
core portion biosynthesis, 259
core structure, 260
Gram-negative, 256-69
isolation, 256
O antigen, 256, 257
phospholipid role in core biosynthesis, 260
structure, biochemistry of phage conversion, 268
Bacterial outgrowth, 180
Bacterial polysaccharides
biosynthesis of, 253-90
capsular, 255
cellulose, 254
lipid A structure, 258
of "rough" and "smooth" strains, 256
Bacterial spore mutants, 176
Bacteriophage
myxobacteria, 93
Basal bodies
structure in protozoa, 140
Biochemical origin
semirough strains, 268
Biochemical oxygen demand (BOD)
definition, 326
exertion of, 322
waste water, 321
Biochemistry
cilia, 139
phage conversion of lipopolysaccharide structure, 268
Biologically active DNA
characteristics, 379
Biological solids and oxygen uptake
relation between in waste treatment, 327
Biological solids production and substrate concentration
relation between in waste treatment, 328
Biological solids and purification rate
relation between in waste treatment, 328
Biology of the myxobacteria, 75-106
Biosynthesis
antigenic side chains in E. coli, 267
antigenic side chains in Salmonellae, 264
of bacterial polysaccharides, 253-90
of complex lipids, 34-40
of fatty acids
cyclopropane acids, 26
in microorganisms, 14
methyl-branched acids, 28
multimethyl-branched acids, 30
of glycolipids, 34-36
of glycosides of hydroxy fatty acids, 36
of glycosyl diglycerides, 34
of lipids in microorganisms, 13-44
of lypopolysaccharides, 36
control mechanisms in, 269
core, phospholipid role in, 260
core portion of, 259
macromolecular
of poxviruses, 213
phosphatides, 36-40
of phosphatidic acid, 36
of phosphatidyl ethanolamine, 37
of phosphatidyl glycerol, 39
of phosphatidyl inositol, 39
of phosphatidyl serine, 37
of plasmalogens, 39
of polar fatty acids, 31-34
n-hydroxy acids, 31
mycolic acids, 32
of polymers of glucosyl-glycerophosphate and galactosyl-glycerophosphate, 275
of polyribitolphosphate and polyglycerophosphate, 275
of polyunsaturated fatty acids, 22
of saturated fatty acids
acetyl-CoA carboxylase in, 14
acyl carrier protein in, 15
in microorganisms, 14
of unsaturated fatty acids, 18-26
aerobic pathway, 18
anaerobic pathway, 24
Biosynthetic capacity
development during outgrowth, 181
Biosynthetic modifications induced by DNA animal viruses, 189-222
Biosynthetic pathways
plant resistance, 360
Breaking and formation of the dormant state in bacteria
developmental changes during, 169-88

C

Capsid
definition, 47
subdivision of virus families, 57
Capsomere
definition, 47
Capsomeres
subdivision of virus families, 57
Capsular
bacterial polysaccharide, 255
Carcinogens
chemical, 233
tumor antigens, 229
Cell division
mechanisms of psittacosis group, 110
Cells, heterologous
antiviral effect of interferon in, 305
Cellular competence
transformation, 372
Cellular DNA synthesis
polyoma-induced, 195
Cellular localization
antigens, 226
Cellulose
bacterial, 254
Cell-virus interaction
subdivision of virus families, 58
Cell walls
psittacosis group, 111
Centrioles
protozoa, 144
Changes
developmental during the formation and breaking of the dormant state in bacteria, 169-88
Changes in spore-forming machinery, 173
Characteristics
biologically active DNA, 379
papovaviruses, 194
Characterization
bacterial lipopolysaccharide, 256
yeast mutants, 158
Chemical carcinogens, 233
Chemical composition
psittacosis group, 110
Chemical oxygen demand (COD)
definition, 326
test
waste water, 326
Chemotaxis
myxobacteria, 89
Chiasma
yeast, 153

Chlamydiae
see Psittacosis group
Chromatid
yeast, 153
Chromatid bodies
protozoa, 136
Chromosome maps
yeast, 153
Chromosomes
protozoan, 132
Cilia
biochemistry of, 139
protozoa, 138
Ciliary corpuscles
in protozoa, 141
Ciliary movement
in protozoa, 140
Circulating interferon
control of viremia by, 309
formation and elimination, 310
protection of target organs by, 309
Classification
animal viruses, 191
criteria in psittacosis group, 122
viral
criteria, 49
evolution of principles, 48–51
Lwoff-Horne-Tournier system, 51–55
nomenclature, 62
nomina conservanda, 67–71
RNA structure, 59
systematics, 62
of viruses, 45–74
antigenicity, 58
Competence
cellular, 372
"factor," evidence for, 378
genetic control of, 373
state of, 374
formation of, 375
Competent state
formation of
physiological state of culture, 375
wall changes accompanying, 377
Complex lipids
biosynthesis of, 34–40
Components
synthesis of spore-specific, 173
Conditions
interferon induction, 292
Constants for design and operation
waste treatment, 327
Control
genetics of sporogenesis, 175
by host cell genome
interferon induction, 291
mechanisms
in lipopolysaccharide biosynthesis, 269
of viremia by circulating interferon, 309
Conversion
gene
yeast, 154
Core portion
lipopolysaccharide biosynthesis, 259
Core structure
lipopolysaccharide, 260
Corpuscles, ciliary, 141
Critical heat "inactivation"
DNA, 381
Culture
physiological state, competence, 375
Cultures, pure
in experimental virology, 192
Curves
of growth in psittacosis group, 109
Cuticle
in plant resistance, 339
in plants, definition of, 339
Cycle
developmental in psittacosis group, 108
Cycles, life
in yeast, 151
Cyclopropane acids
in fatty acid biosynthesis, 26
Cytocidal infection
polyoma virus, 194
SV40, 197
Cytoplasmic microorganisms
protozoa, 134
Cytoplasmic organelles
containing DNA in protozoa, 135
problems connected with the formation of, 144

D

DNA
biologically active
strandedness, 381
characteristics for biologically active, 379
"critical heat inactivation," 381
cytoplasmic organelles containing, 135
host cell and interferon induction, 291
integration
transformation in, 382
metabolism
of psittacosis group, 117
receptor, evidence for, 378
replication
relationship to transcription during outgrowth, 183
synthesis
bacterial outgrowth in, 183
cellular, polyoma-induced, 195
transfection, 390
transforming, fate of, 383
DNA animal viruses
biosynthetic modifications induced by, 189–222
Design and operation of waste treatment
constants of, 327
Detoxication
plant resistance, 348
Development of biosynthetic capacity
outgrowth, 181
Developmental cycle
psittacosis group, 108
Diameter
viral classification criteria, 50
Dictyosomes
see Golgi apparatus
Differential membrane permeability
in plant resistance, 339
Digestion
in protozoa, 133
Discontinuous relationship
waste water kinetics, 321
Disease resistance in plants
definition of, 337
Diseases in plants
definition of, 338
Diseases, viral
therapy and prophylaxis, 311
Diversity of animal virus groups, 190
Dormant state, in bacteria
developmental changes during the formation and breaking of, 169–88
Drug susceptibility
in psittacosis group, 122

E

Ecology
of myxobacteria, 77
Effect of host cell metabolism
psittacosis group, 120
Effect of steroid hormones
on interferon action, 307
on interferon production, 307

Effects of interferon on uninfected cells, 296
Ejectile organelles
in protozoa, 137
Ejectosomes
protozoa, 137
in protozoan Golgi apparatus, 133
Elimination and formation of circulating interferon, 310
Endogenous metabolism
psittacosis group, 115
Endosymbionts
in protozoa, 135
Energy metabolism
psittacosis group, 115
Enhancement, immunological, 246
Enrichment, yeast mutant, 155
Enzyme
activity
in plant resistance, 355
in experimental virology, 193
-gene relationships
in yeast, 160
induction
in adenoviruses, 207
in poxviruses, 214
polyoma-induced, 196
spore-specific, 174
subdivision of virus families, 58
synthesis
outgrowth, 182
Escape from nonimmunologic surveillance, 247
Ether sensitivity
viral classification criteria, 50
Etiology
of neoplasms
TSTA, 248
Evolution
of principles of viral classification, 48-51
viral, 54
Exertion of biochemical oxygen demand, 322
role of protozoa, 323
Experimental virology
see Virology
Explosive organelles
in protozoa, 137

F

Fate of transforming DNA, 382
Fatty acid biosynthesis
cyclopropane acids, 26
methyl-branched acids, 28
in microorganisms, 14
multimethyl-branched acids, 30
of polyunsaturated, 22
of saturated, 14-18
of unsaturated, 18-26
aerobic pathway, 18
anaerobic pathway, 24
Feedback inhibition
sequential substrate removal, 325
Field resistance in plants
definition, 337
Flagella
protozoa, 138
Food vacuoles
protozoa, 133
Formation
of competent state, 375
of cross-linked structure glycopeptide, 273
of cytoplasmic organelles
problems connected with, 144
and elimination of circulating interferon, 310
Fruiting body
myxobacteria, 87
Fruiting body formation
effects of nutritional milieu on myxobacteria, 88
Function
of membrane-bound lipid intermediates, 270
and structure in protozoa, 131-50
Future
of microbiology, 1-12

G

Galactosyl-glycerophosphate
biosynthesis of polymers, 275
Gene action
regulation, 161
yeast, 160
Gene conversion
yeast, 154
Gene-enzyme relationships
yeast, 160
General nature of initiator system, 179
Genetic control
of competence, 373
sporogenesis, 175
Genetic material
subdivision of virus families, 57
Genetics
of suppressor mutations, 411
yeast, 151-68
Genome
control of interferon induction by host cell, 291
mapping by transformation, 386
Genus
viral classification, 57
Germination
L-alanine-induced trigger, 179
initation of, 177
multiplicity of trigger mechanisms, 177
Poisson distribution, 178
Woese hypothesis, 178
Glucosyl-glycerophosphate
biosynthesis of polymers, 275
Glycolipids
biosynthesis of, 34-36
Glycopeptide, 270
formation of cross-linked structure and action of penicillin, 273
function of membrane-bound lipid intermediates, 270
incorporation of N-acetylmuramic acid and N-acetylglucosamine, 270
linkage of teichoic acids to, 276
mechanism of action of cycloserine, 274
Glycosides of hydroxy fatty acids
biosynthesis of, 36
Glycosyl diglycerides
biosynthesis of, 34
Golgi apparatus
ejectosomes, 133
plasmic rodlets, 133
protozoa, 133
Gram-negative lipopolysaccharides, 256-69
Growth curves
psittacosis group, 109
Growth rate
waste water, 321
Growth requirements
psittacosis group, 109

H

Haptonema
in protozoa movement, 142
Helper virus
adenovirus, 203
Hemagglutinin
psittacosis group, 114
Herpes simplex virus
replication, 211
Herpesvirus, 209
replication of herpes simplex virus, 211
replication of pseudorabies, 209
Heterogeneous populations of waste water, 319
Heterologous cells
antiviral effect of inter-

feron, 305
Heterozygotes
transformation, 385
Histocompatibility-2 antigen, 226
History of microbiology, 1-12
Hormones
steroid and interferon, 307
Host cell
physiological state in viral replication, 191
Host cell metabolism
effects of, 120
Host defense mechanisms
antigenic tumor cell rejection, 233-43
immunological surveillance, 234
Host penetration
by plant microorganisms, 338
Humoral antibodies
tumor cells, 242
Hybrid
adenovirus SV40, 203
Hybridization technique
in polyoma transformation, 199
n-Hydroxy acids
polar fatty acid biosynthesis, 31
Hypersensitivity in plants
definition of, 337
Hypothesis, Woese, 178

I

Immunity, in plants
definition of, 337
Immunological enhancement
tumor cells, 246
Immunological surveillance
escape from
antigenic loss, 247
enhancement, 246
"sneaking through," 245
tolerance, 244
failure of, 243
mechanism, 234
Incorporation
of N-acetylmuramic acid and N-acetylglucosamine, 270
KDO, 258
Indirect suppression, 404
Induced mutation
yeast, 156
Inducers
interferon, 293
Induction
antiviral state in interferon-exposed cells, 297
enzyme
adenoviruses, 207
poxviruses, 214
of interferon, 291
yeast, 155
Infection, multiplicity of
in experimental virology, 192
Infectious agents
resistance of plants to, 337-70
Informational suppression, 407
phenotypic, 414
role of ribosomal mutations in, 417
Inhibitor production
to plant microorganisms, 342
in plant resistance, 342
Inhibitors
in experimental virology, 193
plant disease
isocoumarin, 343
pisatin, 342
plant resistance
post-infectional, 344
wound mechanism in plants, 347
Initiation of germination, 177
Initiator system
general nature of, 179
Integration
one or two strands, 385
Interallelic recombination in yeast, 154
Interference in yeast, 153
Interferon, 291-318
different molecular species, 293
inducers, 293
induction of, 291
conditions needed for, 292
control by host cell genome, 291
phylogenetic occurrence of the system, 307
pretreatment with, 303
production
effect of steroid hormones on, 307
and steroid hormones, 307
transformation, 311
and viral oncogenesis, 311
and viremia, 308
Interferon action, 296
antiviral mechanisms, 300
effect of steroid hormones on, 307
nonheritable resistance among viruses, 303
in uninfected cells, 296
Interferon, antiviral effect
in heterologous cells, 305
Interferon, antiviral state
induction in cells exposed to, 297
Interferon, circulating
control of viremia by, 309
formation and elimination, 310
protection of target organs by, 309
Intergenic suppression, 407
Intragenic suppression, 405
acridine mutations, 406
Intra-group relations
psittacosis group, 121
Isocoumarin
disease inhibitor in plants, 343
Isolation
bacterial lipopolysaccharide, 256
Isolation methods
myxobacteria, 76
Isotopes
experimental virology, 193

K

KDO (3-deoxyoctulosonate)
-heptosephosphate backbone structure, 258
incorporation, 258
Kinetics of activated sludge, 320
Kinetics of substrate removal and growth in waste waters, 320
Kinetoplast
in protozoa, 135

L

Life cycle
myxobacteria, 87-92
yeast, 151
Linkage groups
by transformation, 386
Linkage of teichoic acids to glycopeptide and control of synthesis, 276
Lipid A
structure, 258
Lipid intermediates
function of membrane-bound, 270
Lipids
biosynthesis of complex, 34-40
biosynthesis in microorganisms, 13-44
psittacosis group, 113
Lipopolysaccharides
biosynthesis of, 36
of Gram-negative organisms, 256-69

see also Bacterial lipopolysaccharide
Localization of antigens, 226
Lwoff-Horne-Tournier System (L. H. T. System)
critiques directed against, 59
variants, 61
viral classification, 51-55
Lysosomes
protozoa, 133
Lytic activity
myxobacteria, 96
Lytic enzyme
spore germination initiator, 179
Lytic factors
myxobacteria, 95

M

Macromolecular biosynthesis
poxviruses, 213
Macromolecular synthesis
adenoviruses, 207
Macromolecules
utilization by myxobacteria, 85
Macronucleus
protozoa, 132
Malonyl-coenzyme A pathway
for saturated fatty acids, 14
Mapping of genome
by transformation, 386
Maps
yeast chromosome, 153
Mastigonemes
in protozoan flagella, 140
Mechanism
of action of cycloserine glycopeptide, 274
of antiviral action, 300
of cell division
psittacosis group, 110
of control in lipopolysaccharide biosynthesis, 269
determining antigens, 229
host defense in antigenic tumor cell rejection, 233-43
immunological surveillance, 234
multiplicity of trigger, 177
of reproduction
psittacosis group, 108
of substrate removal and growth
waste water, 324
of suppressor action, 412
of susceptibility in plants, 353
wound
in plant resistance, 347
Membrane-bound lipid intermediates
function of, 270
Membrane permeability
differential in plant resistance, 339
Metabolic control mechanisms
waste water, 324
Metabolic regulation
sporogenesis, 171
Metabolism
DNA
psittacosis group, 117
endogenous
psittacosis group, 115
energy
psittacosis group, 115
myxobacteria, 86
protein
psittacosis group, 120
RNA
psittacosis group, 119
shifts
plant resistance, 354
N-Methylation of phosphatidyl ethanolamine, 38
Methyl-branched acids
fatty acid biosynthesis, 38
Microbial transfection, 371-400
Microbial transformation, 371-400
Microbiology of waste water, 319-36
Microcyst
myxobacteria, 79
formation, 90
germination, 91
resistance of myxobacteria, 92
Microorganisms
fatty acid biosynthesis in, 14
lipid biosynthesis in, 13-44
plant
host penetration by, 338
protozoan cytoplasmic, 134
Microtubules
protozoa, 138
"Mis-sense" suppression, 408
Mitochrondia
in protozoa, 135
Mitotic segregation
yeast, 154
Mode of action
suppression, 402
Modifications
biosynthetic induced by DNA animal viruses, 189-222
Molecular size
biologically active DNA, 379
Molecular species
interferon, 293
Monad equation, 320
Morphogenesis
myxobacteria, 87-92
Morphogenetic mutants
myxobacteria, 92
Morphological mutants
yeast, 159
Morphological stages
sporogenesis, 175
Morphology
of myxobacteria, 78-80
Motility
of myxobacteria, 95
Movement, ciliary, 140
Muciferous bodies
in protozoa, 137
Multimethyl-branched acids
fatty acid biosynthesis, 30
Multiplicity of infection
experimental virology, 192
Multiplicity of trigger mechanisms
germination, 177
Mutant characterization
yeast, 158
Mutant enrichment
yeast, 155
Mutants
amber and ochre
nature of, 409
auxotrophic, 414
bacterial spore, 176
morphogenetic
myxobacteria, 92
morphological
yeast, 159
respiration-deficient
yeast, 162
yeast
petite strains, 162
segregational petites, 162
vegetative petites, 162
Mutation
induced
yeast, 156
spontaneous
yeast, 156
suppression, 401
yeast, 155
techniques, 155
Mutations
acridine-induced
intragenic suppression, 406
corrected by streptomycin, 416
of classical streptomycin locus and streptomycin-induced suppression relations, 416
role of ribosomal in informational suppression, 417
suppressible

yeast, 157
suppressor
genetics of, 411
uncharacterized, 418
Mycolic acids
polar fatty acid biosynthesis, 32
Myristic acids
as product of saturated fatty acid synthesis, 17
Myxobacteria
antibiotic activity, 95
antibiotic production, 99
bacteriophage, 93
biology of, 75-106
chemotaxis, 89
definition, 76
ecology, 77
effect of mono- and disaccharides, 83
effect of nutritional milieu on fruiting body formation, 88
fruiting body, 87
isolation methods, 76
life cycle, 87-92
lytic activity, 96
lytic factor, 95
metabolism, 86
microcysts, 79
formation, 90
germination, 91
resistance, 92
morphogenesis, 87-92
morphogenetic mutants, 92
morphology, 78-80
motility, 95
nitrogen requirements, 81
nutrition, 80-86
pathogenicity, 94
pigments, 94
taxonomy, 99
utilization of macromolecules, 85
utilization of subcellular fractions, 86
vegetative cells, 78
vitamin requirements, 84

N

Nature
of amber and ochre mutants, 409
of amber and ochre suppressors, 411
general, of the initiator system in germination, 179
tumor-specific transplantation antigens, 227
"Nebenkörper," in protozoa, 135
Neoplasia
animal viruses, 190
SV40, 197
Neoplasms
etiology
significance of TSTA, 248
prevention
significance of TSTA, 248
therapy
significance of TSTA, 248
Neoplastic cells
antigens, 223
Nitrogen-deficient waste treatment, 326
Nitrogen requirements
myxobacteria, 81
Nomenclature
virus classification, 62
Nomina conservanda
virus classification, 67-71
Nonheritable interferon resistance among viruses, 303
Nonimmunological surveillance escape from, 247
"Nonsense" suppression, 408
Nuclear envelope
protozoa, 132
Nucleic acids
change during sporogenesis, 172
psittacosis group, 112
viral classification criteria, 49, 53
Nucleocapsid
definition of, 48
viral classification criteria, 53
Nucleoli
protozoa, 132
Nucleus
protozoa, 132
Nutrition
myxobacteria, 80-86
Nutritional milieu
effects on fruiting body formation in myxobacteria, 88

O

O antigen
biosynthesis of
side chains in E. coli, 267
side chains in Salmonellae, 264
lipopolysaccharide, 256, 257
Occurrence
tumor-specific antigen, 228
Occurrence of the interferon system
phylogenetic, 307
Ochre mutants
nature of, 409
Ochre suppressors
nature of, 411
Oncogenesis
viral and interferon, 311
Ordered protein and enzyme synthesis, 182
Organelles
cytoplasmic
containing DNA in protozoa, 135
ejectile
protozoa, 137
explosive
protozoa, 137
Organs, target
protection by circulating interferon, 309
Outgrowth
absence of stable mRNA in spores, 180
bacterial, 180
DNA synthesis, 183
development of biosynthetic capacity, 181
ordered protein and enzyme synthesis, 182
relationship between transcription and DNA replication, 183
Oxidation
products of partial, 326
Oxidative assimilation
waste water, 326
Oxygen uptake and biological solids
relation between in waste treatment, 327

P

Palmitic acid
as product of saturated fatty acid synthesis, 17
Papovavirus
adenovirus-SV40 hybrid, 203
characteristics, 194
polyoma virus
and cytocidal infection, 194
transformation, 198
SV40 cytocidal infection, 197
SV40 transformation, 200
transformation of cells in vitro, 198
Parabasal bodies
see Golgi apparatus
Pathogenicity
myxobacteria, 94
Pathways
biosynthetic
plant resistance, 360
of malonyl coenzyme A
in saturated fatty acid bio-

synthesis, 14
Penetration
DNA
molecular size, 379
strandedness, 381
into host
by plant microorganisms, 338
Penicillin
action of, 273
Peplomers
subdivision of virus families, 57
Peplos
definition of, 48
subdivision of virus families, 58
Permeability
differential membrane
in plant resistance, 339
"Petites"
segregational
yeast mutants, 162
Petite strains
yeast mutants, 162
Phage
transfection, 391
Phage conversion
lipopolysaccharide structures
biochemistry of, 268
Phenotypic informational suppression, 414
Phosphatides
biosynthesis of, 36-40
Phosphatidic acid
biosynthesis of, 36
Phosphatidyl ethanolamine
biosynthesis of, 37
N-methylation of, 38
Phosphatidyl glycerol and its amino acid esters
biosynthesis of, 39
Phosphatidyl inositol and its glycoside derivatives
biosynthesis of, 39
Phosphatidyl serine
biosynthesis of, 37
Phospholipid
role in lipopolysaccharide core biosynthesis, 260
Phylogenetic occurrence of the interferon system, 307
Physiological stages
sporogenesis, 175
Physiological state
host cell in viral replication, 191
of culture
competence, 375
Pigments
myxobacteria, 94
Pinocytosis
in protozoa, 134
Pisatin
disease inhibitor in plants, 342
Plant cuticle
definition of, 339
Plant disease inhibitor
isocoumarin, 343
pisatin, 342
Plant hypersensitivity
definition of, 337
Plant immunity
definition of, 337
Plant microorganisms
host penetration by, 338
Plant resistance
biosynthetic pathways, 360
cuticle, 339
definition of, 337
detoxication, 348
differential membrane permeability, 339
enzyme activity, 355
to infectious agents, 337-70
inhibitor production, 342
isocoumarin, 343
pisatin, 342
post-infectional inhibitors, 344
protein, 355
respiration, 355
stomata, 339
susceptibility, 352
symptoms of susceptibility, 353
wound mechanism, 347
Plant susceptibility
definition of, 352
Plasmalogens
biosynthesis of, 39
Plasmic rodlets
in Golgi apparatus, 133
Pleiotrophism
suppression, 417
Poisson distribution
spore germination, 178
Polar fatty acids
biosynthesis in microorganisms, 31-34
Pollution strength
waste water, 322
Polyglycerophosphate
biosynthesis of, 275
Polyoma-induced cellular
DNA synthesis, 195
Polyoma-induced enzymes, 196
Polyoma system
tumor antigens, 228
Polyoma transformation
hybridization technique, 199
Polyoma virus
-cytocidal infection, 194
-transformation, 198
Polyribitolphosphate
biosynthesis of, 295
Polysaccharides
bacterial biosynthesis, 253-90
see also Bacterial polysaccharides
Polyunsaturated fatty acids
biosynthesis in microorganisms, 22
Postgerminative development
see Outgrowth
Post-infectional inhibitors
in plant resistance, 344
Poxviruses, 211
enzyme induction, 214
macromolecular biosynthesis, 213
"uncoating," 212
viral replication, 212
Prevention
neoplasms
TSTA, 248
Problem of heterozygotes
transformation, 385
Procedures
tetrad and random spore analysis, 152
Production of inhibitors
in plant resistance, 342
Production of interferon
pretreatment with, 303
Products of partial oxidation
waste water, 326
Prophylaxis and therapy of virus diseases, 311
Protection of target organs
by circulating interferon, 309
Protein
plant resistance, 355
psittacosis group, 113
synthesis
ordered, 182
sporogenesis, 173
Protein metabolism
psittacosis group, 120
Protein-synthesizing system
bacterial outgrowth, 181
Protozoa
axostyles, 142
basal bodies, 140
centrioles, 144
chromatoid bodies, 136
chromosomes, 132
cilia, 137
ciliary corpuscles, 141
ciliary movement, 140
cytoplasmic microorganisms, 134
cytoplasmic organelles containing DNA, 135
digestion, 133
ejectile organelles, 137
ejectosomes, 133, 137
endosymbionts, 135
explosive organelles, 137
flagella, 138
food vacuoles, 133

Golgi apparatus, 133
haptonema, 142
kinetoplast, 135
lysosomes, 133
macronucleus, 132
mastigonemes, 140
microtubules, 138
mitochondria, 135
muciferous bodies, 137
"Nebenkörper," 135
nuclear envelope, 132
nucleoli, 132
nucleus, 132
pinocytosis, 134
plasmic rodlets, 133
ribosomes, 136
role in exertion of BOD, 323
spindle fibers, 138
structure and function, 131-50
symbiosis, 134-35
trichocysts, 137
Pseudorabies
replication, 209
Pseudoviruses, 47
Psittacosis group
antigens, 113
cell walls, 111
classification criteria, 122
developmental cycle, 108
DNA metabolism, 117
drug susceptibility, 122
effect of host cell metabolism, 120
endogenous metabolism, 115
energy metabolism, 115
growth curves, 109
growth requirements, 114
hemagglutinin, 114
intra-group relations, 121
lipids, 113
mechanism of cell division, 110
metabolism, 114
nucleic acids, 112
protein, 113
metabolism, 120
relation to bacteria, 123
and viruses, 107-30
reproduction mechanism, 108
RNA metabolism, 119
structure and chemical composition, 110
taxonomic position, 121
vitamin requirement, 114
Pure cultures
experimental virology, 192
Purification rate and biological solids
relation between in waste treatment, 328

R

Random spore analysis procedure, 152
Recombination
interallelic
yeast, 154
yeast, 152
Regulation
metabolic, 171
yeast gene action, 161
Rejection
tumor
failure of, 243
important host defense mechanisms in, 233-43
Relation between biological solids
and oxygen uptake
waste treatment, 327
and purification rate
waste treatment, 328
Relation between biological solids production and substrate concentration
in waste treatment, 328
Relation of psittacosis group
to bacteria and viruses, 107-30
intragroup, 121
Relation between streptomycin-induced suppression, mutations of classical streptomycin locus, 416
Relation between transcription and DNA replication during outgrowth, 183
Replication
adenoviruses, 206
herpes simplex virus, 211
poxviruses, 212
pseudorabies, 209
viral steps, 193
Reproduction mechanisms
psittacosis group, 108
Resistance
of microcyst
myxobacteria, 92
nonheritable interferon
among viruses, 303
plant
definition of, 337
detoxication, 348
to infectious agents, 337-70
inhibitor production, 342
metabolism shifts, 354
susceptibility, 352
to plant diseases
definition, 337
yeast mutants, 159
Respiration
in plant resistance, 355
Respiration-deficient mutants
yeast, 162
Ribosomal mutations
in informational suppression
role of, 417
Ribosomal system
in spore outgrowth, 182
Ribosomes
in protozoan chromatoid bodies, 136
mRNA
absence of stable
in spores, 180
suppressors possibly affecting, 407
RNA
metabolism
psittacosis group, 119
structure
virus classification, 59
transformation, 389
Role
of phospholipid in biosynthesis of lipopolysaccharide core, 260
of protozoa in exertion of BOD, 323
of ribosomal mutations in informational suppression, 417
"Rolling-tube filter" studies, 322
"Rough" strain
polysaccharides, 256
semi-
possible biochemical origin, 268
Rous-Bryan system
tumor antigens, 231

S

Saccharides
effects of mono- and di- on myxobacteria, 83
Saturated fatty acids
biosynthesis
acetyl-coA carboxylase in, 14
acyl carrier protein, 15
in microorganisms, 14
myristic acids as a product of, 17
stearic acids as a product of, 17
products of synthesis, 17
synthesis
palmitic acid as a product of, 17
Schmidt-Ruppin-Rous system
tumor antigen, 232
Segregation
mitotic
yeast, 154
Segregational petites
yeast mutants, 162
Sequential substrate removal

waste water, 324
age, 325
feedback inhibition, 325
metabolic control mechanisms, 324
Shifts in metabolism
plant resistance, 354
Shock loads
waste water, 325
Shope papilloma-carcinoma system
tumor antigen, 232
Size
molecular of DNA, 379
Sludge
activated, 320
"Smooth" strain
polysaccharides, 256
"Sneaking through"
tumor cells, 245
Soluble biological oxygen demand, 321
Species
different molecular of interferon, 293
Specificity
subdivision of virus families, 58
Spindle fibers
protozoa, 138
Spontaneous mutation
yeast, 156
Spore
absence of stable mRNA, 180
analysis
yeast, 152
bacterial mutants, 176
-forming machinery
changes in, 173
-specific antigens, 174
-specific components
synthesis of, 173
-specific enzymes, 174
Sporogen, 171
Sporogenesis
bacterial, 170
metabolic regulation, 171
morphological and physiological stages, 175
nucleic acid changes, 172
protein synthesis, 173
sporogen, 171
transcriptional products, 172
Stability of the family
viral classification, 55
State of competence, 374
Steady-state systems
waste water, 320
Stearic acids
as products of saturated fatty acid synthesis, 17
Steroid hormones and interferon, 307
Stomata
in plant resistance, 339
Strandedness
biologically active DNA, 381
Streptomycin
-induced suppression and mutations of classical locus
relation between, 416
suppression induced by, 415
type of mutations corrected by, 416
Structural units
subdivision of virus families, 57
Structure
and function in protozoa, 131-50
KDO-heptose phosphate backbone, 258
of lipid A, 258
lipopolysaccharide
biochemistry of phage conversion, 268
core, 262
psittacosis group, 110
of RNA
virus classification, 59
Subcellular fractions
utilization by myxobacteria, 86
Subdivision of families
viral classification, 57-58
Subdivision of virus families
capsid, 57
cell-virus interaction, 58
enzymes, 58
genetic material, 57
peplomers, 57
peplos, 58
specificity, 58
structural units and the capsomers, 57
symptomatology, 58
viral development, 58
virulence, 58
Substrate
concentration
biological solids production in waste treatment, 328
in waste water, 321
removal and growth
kinetics of, 320
mechanisms of, 324
sequential, 324
Sugars
addition of side chain teichoic acids, 275
Suppressible mutations
yeast, 157
Suppression, 401-22
autotrophic mutants, 414
definition of, 401
indirect, 404
induced by streptomycin and other agents, 415
informational, 407
role of ribosomal mutations in, 417
intragenic, 405, 407
acridine mutations, 406
"mis-sense," 408
mode of action, 402
nature of amber and ochre mutants, 409
nonsense, 408
phenotypic
informational, 414
pleiotrophism, 417
at translation level, 408
Suppressor
action
mechanisms of, 412
mutations
genetics of, 411
uncharacterized, 418
nature of amber and ochre, 411
possibly affecting mRNA, 407
unstable, 418
yeast, 157
Surveillance mechanism
tumor antigens, 234
Susceptibility
drug
in psittacosis group, 122
mechanisms of
in plants, 353
plant resistance, 352
symptoms of
in plants, 353
SV40
-adenovirus hybrid, 203
-cytocidal infection, 197
neoplasia, 197
transformed cells
transplantation antigen, 202
tumor antigen, 201, 203
virus
transformation, 200
Symbiosis
in protozoa, 134-35
Symmetry
viral classification criteria, 53
Symptomatology
subdivision of virus families, 58
Syngeneic preference
tumor antigens, 237
Synthesis
cellular DNA
polyoma-induced, 195
DNA
bacterial outgrowth, 183
interferon
see Interferon induction

macromolecular
adenoviruses, 207
ordered protein during outgrowth, 182
protein
sporogenesis, 173
of spore-specific components, 173
Systematics
virus classification, 62

T

Target organs
protection by circulation interferon, 309
Taxonomy
myxobacteria, 99
position
psittacosis group, 121
values of groups
in viral classification, 55
Techniques
yeast mutation, 155
Teichoic acids, 274
addition of side chain sugars, 275
biosynthesis
of polymers of glucosyl-glycerophosphate and galactosyl-glycerophosphate, 275
of polyribitolphosphate and polyglycerophosphate, 275
linkage to glycopeptide and control of synthesis, 276
Terminology
viruses, 47-48
Tetrad and random spore analysis procedures, 152
Therapy
neoplasms
TSTA, 248
and prophylaxis of virus diseases, 311
Tolerance
tumors, 244
Transcription
"helper" phage, 391
microbial, 371-400
outgrowth, 181
products
sporogenesis, 172
relation to DNA replication during outgrowth, 183
transfection
definition, 391
Transfer efficiencies
waste treatment, 331
Transformation
adenoviruses, 208
of cells in vitro
papovaviruses, 198
cellular competence, 372
competence "factor," 378
definition, 372
DNA integration, 382
DNA receptor, 378
formation of competent state, 375
genetic control of competence, 373
heterozygotes, 385
integration, 385
interferon, 311
linkage groups, 386
mapping of genome, 386
microbial, 371-400
polyoma
hybridization technique, 199
RNA, 389
state of competence, 374
yeast, 164
Transformed cells
SV40-
transplantation antigen, 202
virus-
antigens, 198
virus-free
antigens, 199
Transforming DNA
fate of, 382
Translation
outgrowth, 181
Translation level
suppression at, 408
Transplantation antigens
SV40-transformed cells, 202
see Tumor-specific
Trichocysts
protozoa, 137
Trigger
L-alanine-induced, 179
Trigger mechanisms
multiplicity of
germination, 177
Tumor
antigenic cells
host defense mechanisms in rejection, 233-43
antigenic strength, 224
antigens, 223-52
allogeneic inhibition, 237
SV40, 201
syngeneic preference, 237
cells
enhancement, 246
humoral antibodies, 242
"sneaking through," 245
tolerance, 244
rejection
failure of, 243
Tumor-specific antigens
carcinogens, 229
viruses, 230
Tumor-specific transplantation antigen (TSTA)
cellular localization, 226
mechanism determining, 229
nature of, 227
occurrence of, 228
polyoma system, 228
Rous-Bryan system, 231
Schmidt-Ruppin-Rous system, 232
Shope papilloma-carcinoma system, 232
Type of mutations corrected by streptomycin, 416

U

Uncharacterized suppressor mutations, 418
Uncoating
poxviruses, 212
Uninfected cells
interferon effects, 296
Unsaturated fatty acids
biosynthesis
aerobic pathway, 18
anaerobic pathway, 24
in microorganisms, 18-26
Unstable suppressors, 418

V

Vacuoles
food, 133
Variables and pitfalls
in experimental virology, 191
Vegetative cells
myxobacteria, 78
Vegetative petites
yeast mutant, 162
Viral classification
criteria, 49
evolution of principles, 48-51
Viral development
subdivision of virus families, 58
Viral evolution, 54
Viral oncogenesis
and interferon, 311
Viral replication, 193
physiological state of host cell, 191
poxviruses, 212
Viremia
control by circulating interferon, 309
and interferon, 308
protection of target organs by circulating interferon, 309

Virion
definition, 47-48
Virology
experimental
enzymes, 193
inhibitors, 193
isotopes, 193
multiplicity of infection, 192
pure cultures, 192
variables and pitfalls, 191
Virulence
subdivision of virus families, 58
Virus
animal
classification, 191
diversity of, 190
neoplasia, 190
characteristics of, 46
DNA animal
biosynthetic modifications induced by, 189-222
nonheritable interferon resistance among, 303
relation of psittacosis group to, 107-30
terminology, 47-48
transfection, 391
tumor antigens, 230
Virus classification, 45-74
antigenicity, 58
genus, 57
Lwoff-Horne-Tournier system, 51-55
nomenclature, 62
nomina conservanda, 67-71
stability of the family, 55
RNA structure, 59
systematics, 62
taxonomic value of groups, 55
Virus diseases
therapy and prophylaxis, 311
Virus-free transformed cells
antigens, 199
Virus-transformed cells
antigens, 198
Vitamin requirements
myxobacteria, 84
psittacosis group, 114

W

Wall changes
accompanying competence, 377
Waste water treatment
anaerobic digestion, 332
biological oxygen demand, 321
biological solids
and oxygen uptake, 327
and purification rate, 328
dependence of growth rate on substrate concentration, 321
kinetics
discontinuous relationship, 321
Monad equation, 320
mechanisms of substrate removal and growth, 324
metabolic control mechanisms, 324
microbiology of, 319-36
pollution strength, 322
products of partial oxidation, 326
relation between biological solids production and substrate concentration, 328
"rolling-tube filter" studies, 322
sequential substrate removal, 324
shock loads, 325
steady-state systems, 320
transfer efficiencies, 331
Woese hypothesis
germination, 178
Wound mechanism
in plant resistance, 347

Y

Yeast
chiasma, 153
chromatid, 153
chromosome maps, 153
gene action, 160
gene conversion, 154
gene-enzyme relationships, 160
genetics, 151-68
induced mutation, 156
induction, 155
interallelic recombination, 154
interference, 153
mitotic segregation, 154
morphological mutants, 159
mutant characterization, 158
mutant enrichment, 155
mutants
petite strains, 162
respiration-deficient, 162
segregational petites, 162
vegetative petites, 162
mutation, 155
spontaneous, 156
suppressible, 157
techniques, 155
recombination, 152
resistance, 159
suppressors, 157
tetrad and random spore analysis, 152
transformation, 164